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# Southern California Edison Company

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August 7, 1980.



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

Attention: Mr. R. H. Engelken, Director

Docket No. 50-206 San Onofre Unit 1

Dear Sir:

IE Bulletin 79-13 Rev. 2 Cracking in Feedwater System Piping

Reference is made to your correspondence of October 17, 1979, forwarding the subject IE Bulletin. The Bulletin required action by licensees concerning the discovery of cracking in feedwater system piping at several nuclear power facilities.

With the exception of those listed below, responses to all other items were forwareded by letter dated July 16, 1979 from SCE (J. H. Drake) to NRC (R. H. Engelken).

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"For steam generator designs with a common nozzle for both main and auxiliary feedwater systems, perform volumetric examination of the feedwater nozzle-to-pipe welds, the feedwater piping welds to the first support, and the feedwater line-to-containment penetration welds in accordance with Item 1 above. In addition, examine an area of at least one pipe diameter of the main feedwater line downstream at the auxiliary feedwater to main feedwater connection."

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During the Spring 1980 refueling outage at San Onofre Unit 1 Response the following examinations were conducted in accordance with Item 1 of the subject Bulletin:

> 1) A radiograph examination was performed on all feedwater nozzle to reducer and reducer to pipe welds. No deficiences were noted.

2) A radiograph examination was performed on feedwater pipe welds from the steam generator to the first support inside containment. One weld (393-8) located within the secondary shield, was not accessible for inspection. The following deficiencies were noted and corrected:

| Weld #          | Deficiency  | Corrective Action               |
|-----------------|---|---------------------------------|
| 391–6           | Lack of penetration<br>over 330° of the<br>weld.              | Complete weld replace-<br>ment. |
| 392-8           | Slag inclusions and porosity.                                 | Weld repair.                    |
| 392 <b>-</b> 12 | Lack of penetration over several areas.                       | Complete weld replace-<br>ment. |
| 393-6           | Lack of penetration<br>in one (1) area<br>and two (2) cracks. | Weld repair.                    |

LER 80-027 and a complete report on these deficiencies were submitted to the NRC on June 23, 1980.

3) An area corresponding to one pipe diameter of the main feedwater line was examined downstream of the auxiliary feedwater to main feedwater branch connections. deficiencies were noted.

All three (3) feedwater-to-containment penetration welds were examined. Since these joints are fillet welds, a volumetric inspection was impractical. A magnetic particle inspection was performed. No defects were noted per ASME Boiler and Pressure Vessel Code, Section V.

"Perform a visual inspection of all feedwater system piping supports and snubbers in containment to verify operability and conformance to design."

During the Spring 1980 refueling outage, while performing functional testing, two (2) failed hydraulic shock and sway suppressors were found. One exhibited abnormal wear on the

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Response

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piston rod bushing and cylinder wall. The other had failed threads on the piston rod and nut. All damaged components and seals were replaced. The reassembled snubbers were functionally tested satisfactorily. LER 80-20 and a complete report were submitted by letter to the NRC on May 28, 1980.

While conducting a visual inspection, three (3) deficient feedwater system piping supports were identified. The deficiences noted were:

#### Support

# Deficiency

| 1-RH-393-2  | Broken pipe clamp       |
|-------------|-------------------------|
| 1-KBG-393-1 | Deformed pipe guide     |
| 1-RH-393-1  | Missing lower clamp nut |

The two (2) damaged supports will be repaired/replaced and a nut on the remaining hanger will be fixed in such a fashion as to preclude vibration induced loosening. LER 80-021 and a complete report were submitted by letter to the NRC on May 29, 1980.

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"A written report of the results of examination, in accordance with requests by regional offices preceding this Bulletin and with Bulletin Items 1 and 2, including any corrective measures taken, shall be submitted within 30 days of the date of the original Bulletin No. 79-13 (June 25, 1979) or within 30 days of completion of the examination, whichever is later, to the director of the appropriate NRC regional office with a copy to the NRC Office of Inspection and Enforcement, Division of Reactor Operations Inspection, Washington, D.C. 20555."

Response

This response and our previous letters to the regional office listed below complete the actions required by this item.

## Date

## Description

5/28/80 5/29/80 6/23/80 7/16/80 LER 80-20 LER 80-021 LER 80-027 SCE Response to IE Bulletin 79-13

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

Sincere H. L. Ottoson

Manager of Nuclear Operations

cc: Director, Office of Inspection and Enforcement Division of Reactor Operations Inspection