



Southern California Edison Company

23 PARKER STREET
IRVINE, CALIFORNIA 92718

WALTER C. MARSH
DIRECTOR OF NUCLEAR REGULATORY AFFAIRS

February 2, 1995

TELEPHONE
(714) 454-4403

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

Gentlemen:

Subject: **Docket Nos. 50-361 and 50-362**
Interim Report on Westinghouse Alloy 600 TT
Mechanical Plugs Installed at
San Onofre Nuclear Generating Station
Units 2 and 3

The following status is provided in response to recent field experience with Westinghouse Alloy 600 Thermally Treated (TT) mechanical plugs as requested by the NRC staff. As described below, Edison currently intends to replace all unrepaired Westinghouse Alloy 600 TT mechanical plugs in the next refueling outages for San Onofre Nuclear Generating Station Units (SONGS) 2 and 3.

Basis for Current Operation

In December 1994, Westinghouse notified Edison of recent field experience with Alloy 600 mechanical plugs that necessitated a revision to the corrosion algorithm presented in WCAP-12244 Rev. 3. This revision in the corrosion algorithm affects our previously developed schedule and action plan for addressing the mechanical plug issue and, as stated, we currently plan to replace all unrepaired Westinghouse Alloy 600 TT plugs currently installed in SONGS 2 and 3 during this year's refueling outages. During the interim period, continued safe operation is assured for SONGS 2 and 3. The basis for acceptability for continued operation is the validation of the previously developed Justification for Continued Operation (JCO) presented in Section 3.0 of WCAP-12244 Rev. 3. Based on a current review of the plant configuration and operating conditions, we have concluded that the JCO remains applicable to SONGS 2 and 3 until their next scheduled refueling outages.

The bases for the JCO are summarized below:

- (1) Low probability of a Plug Top Release (PTR) event
- (2) There are no plugs installed in the population of tubes which may perforate as a result of a PTR

9502060097 950202
PDR ADDOCK 05000361
PDR

Acc'd. Add: Steve Dembek
14B20
Hr Encl
11



- (3) Should perforation occur, the primary to secondary leakage consequences are limited to 80 gallons per minute
- (4) There is a low likelihood that multiple plugs could be in a condition that would be capable of resulting in PTR
- (5) The plant Emergency Operating Instructions are adequate to bring the plant to a safe shutdown condition

Westinghouse analysis and testing has shown that a plug top release will lead to tube perforation only in steam generator tube rows one through four for SONGS 2 and 3. Since all the SONGS 2 and 3 Alloy 600 TT mechanical plugs are installed in row 20 and greater, plug top release is not expected to lead to tube perforation.

Action Plan

As described previously, Edison intends to comply with the recommendations set forth in the Westinghouse Owner's Group letter 03-94-017 dated December 30, 1994.

San Onofre Unit 2:

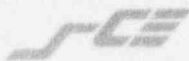
At present, San Onofre Unit 2 has a total of 287 Westinghouse Alloy 600 TT mechanical plugs in service which have not been repaired. Of these, 142 are hot leg plugs and 145 are cold leg plugs. Table 1, attached, provides the current plant mechanical plug configuration.

All the unrepaired Westinghouse Alloy 600 TT mechanical plugs installed in San Onofre Unit 2 will be replaced in the Cycle 8 refueling outage which is scheduled to begin on February 11, 1995.

San Onofre Unit 3:

At present, San Onofre Unit 3 has a total of 178 Westinghouse Alloy 600 TT mechanical plugs in service which have not been repaired. All of these plugs are installed in the cold legs. Table 2 attached provides the current plant mechanical plug configuration.

We plan to replace all the unrepaired Westinghouse Alloy 600 TT mechanical plugs installed in San Onofre Unit 3 in the Cycle 8 refueling outage which is scheduled to begin on July 8, 1995. If these plans change, we will advise the NRC of our revised plan at least 30 days before the outage.



Document Control Desk

-3-

These actions are consistent with the action plan defined in NRC IE Bulletin 89-01 and its supplements. This action plan applies only to Alloy 600 TT mechanical plugs. Repaired or welded plugs are not affected. Westinghouse has communicated to us that they intend to issue Addendum 3 to WCAP-12244 Rev. 3 in the near future. We will notify you if this addendum leads to any revisions in our action plan.

If you have any questions or concerns relative to this preliminary response, please contact Mr. Michael P. Short at (714) 368-6244.

Sincerely,

Enclosure

cc: L. J. Callan, Regional Administrator, NRC Region IV
B. W. Sheron, Director, Division of Engineering, NRR
A. B. Beach, Director, Division of Reactor Projects, Region IV
K. E. Perkins, Jr., Director, Walnut Creek Field Office, NRC Region IV
J. A. Sloan, NRC Senior Resident Inspector, San Onofre Units 2 & 3
M. B. Fields, NRC Project Manager, San Onofre Units 2 and 3

**Westinghouse Alloy 600 TT Mechanical Plugs Installed as of 1/30/95
San Onofre Nuclear Generating Station (SONGS) Units 2 and 3**

**Table 1
SONGS Unit 2**

Steam Generator 88			Steam Generator 89		
Heat No.	Hot Leg	Cold Leg	Hot Leg	Cold Leg	Total
2387	62	0	80	0	142
5222	0	1	0	1	2
2387	0	63	0	80	143
Total	62	64	80	81	287

**Table 2
SONGS Unit 3**

Steam Generator 88			Steam Generator 89		
Heat No.	Hot Leg	Cold Leg	Hot Leg	Cold Leg	Total
5222	0	77	0	100	177
2387	0	0	0	1	1
Total	0	77	0	101	178