



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

September 10, 1997

EA-414

Harold B. Ray, Executive Vice President
Southern California Edison Co.
San Onofre Nuclear Generating Station
P.O. Box 128
San Clemente, California 92674-0128

SUBJECT: NPC INSPECTION REPORT 50-361/97-13; 50-362/97-15 AND NOTICE OF VIOLATION

Dear Mr. Ray:

An NRC inspection was conducted onsite June 30 through July 3, 1997, at your San Onofre Nuclear Generating Station, Units 2 and 3, reactor facilities, as a result of the identification during the Units 2 and 3 Cycle 9 refueling outages of recurring through-wall cracking in Inconel 600 reactor coolant system nozzle penetrations. Additional in-office and onsite inspection was performed during July 25 through September 2, 1997. The additional inspection included review of a July 22, 1997, letter from your staff pertaining to compliance with Criterion XVI of Appendix B to 10 CFR Part 50. The July 22, 1997, letter has been included as Attachment 2 to the inspection report. Presentations made by your staff during a meeting in the Region IV office on August 21, 1997, have been included as Attachments 3 and 4 to the inspection report. The enclosed report presents the scope and results of this inspection.

The inspection identified one violation pertaining to the placing of the Unit 3 reactor coolant system in a 10 CFR 50.65(a)(2) category as of July 10, 1996, despite the identification in 1995 of through-wall cracking in four reactor coolant system nozzle penetrations.

The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding the violation are described in detail in the enclosed report. Please note that you are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.



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The results of the inspection indicate that refueling outage inspections have identified recurring through-wall cracking in Inconel 600 reactor coolant system nozzle penetrations, with the predominant degradation mechanism determined to be primary water stress corrosion cracking. While you have conducted repairs upon identification of cracking in individual nozzle penetrations, we consider your overall response to be of concern. Specifically, your current approach to this degradation issue allows the potential for reactor coolant system pressure boundary leakage to occur during Mode 1 power operations, a condition not permitted by your Technical Specifications. We further note that repetitive failures have occurred in individual heats of Inconel 600 alloy nozzle penetrations, indicating certain heats of material are particularly susceptible to primary water stress corrosion cracking.

Based on the results of this inspection, one apparent violation was also identified and is being considered for escalated enforcement action in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NU/REG-1600. Accordingly, no Notice of Violation is presently being issued for this inspection finding. The apparent violation involved the failure to implement actions to preclude recurrence of Heat NX7630 nozzle penetration cracking in accordance with the requirements of Criterion XVI of Appendix B to 10 CFR Part 50. In addition, please be advised that the number and characterization of the apparent violation described in the enclosed inspection report may change as a result of further NRC review.

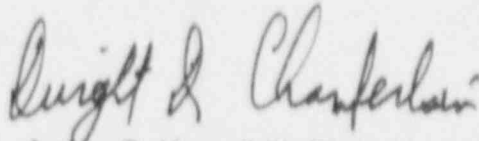
A predecisional enforcement conference to discuss this apparent violation has been scheduled for September 24, 1997, at 1 p.m. CDT. The decision to hold a predecisional enforcement conference does not mean that the NRC has made a final determination that a violation has occurred or that enforcement action will be taken. This conference is being held to obtain information to enable the NRC to make an enforcement decision, such as a common understanding of the facts, root causes, missed opportunities to identify the apparent violation sooner, corrective actions, significance of the issues and the need for lasting and effective corrective action. In addition, this is an opportunity for you to point out any errors in our inspection report and for you to provide any information concerning your perspectives on 1) the severity of the apparent violation, 2) the application of the factors that the NRC considers when it determines the amount of a civil penalty that may be assessed in accordance with Section VI.B.2 of the Enforcement Policy, and 3) any other application of the Enforcement Policy to this case, including the exercise of discretion in accordance with Section VII. This conference will be open to public observation in accordance with the Enforcement Policy.

You will be advised by separate correspondence of the results of our deliberations on this matter. No response regarding the apparent violation is required at this time.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room (PDR).

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,


fr Arthur T. Howell III, Director
Division of Reactor Safety

Docket Nos.: 50-361; 50-362
License Nos.: NPF-10; NPF-15

Enclosure:
NRC Inspection Report
50-361/97-15; 50-362/97-15

cc w/enclosures:
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E-Mail report to T. Frye (TJF)
 E-Mail report to T. Hiltz (TGH)
 E-Mail report to NRR Event Tracking System (IPAS)
 E-Mail report to Document Control Desk (DOCDESK)
 E-Mail report to R. Corriea (RPC)
 E-Mail report to F. Talbot (FXT)

bcc to DCD (IE01)

bcc distrib. by RIV:

Regional Administrator
 DRP Director
 Branch Chief (DRP/F, WCFO)
 Senior Project Inspector (DRP/F, WCFO)
 Branch Chief (DRP/TSS)
 WCFO File
 G. F. Sanborn, EO
 W. L. Brown, RC
 J. Lieberman, OE, MS: 7-H5
 OE:EA File, MS: 7-H5

Resident Inspector
 DRS-PSB
 MIS System
 RIV File
 M. Hammond (PAO, WCFO)

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