

Southern California Edison Company

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JACK B. MOORE
VICE PRESIDENT

February 22, 1979

TELEPHONE
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Mr. R. H. Engelken, Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Region V
Suite 202, Walnut Creek Plaza
1990 North California Blvd.
Walnut Creek, CA 94596

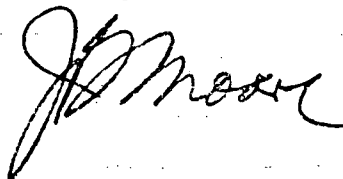
Dear Mr. Engelken:

Subject: Docket Nos. 50-361 and 50-362
San Onofre Nuclear Generating Station, Units 2 and 3

By letter dated January 23, 1979, we confirmed notification concerning a reportable condition in construction of San Onofre Units 2 and 3 related to surface defects in carbon steel pipe manufactured by Taylor Forge. Enclosed, in accordance with 10CFR50.55(e), are twenty five (25) copies of an interim report concerning this matter entitled, "Interim Report on Taylor Forge Pipe Defects, San Onofre Nuclear Generating Station, Units 2 and 3." By April 6, 1979, we will advise you of the submittal date for the final report.

If you have any questions regarding this report, we would be pleased to discuss this matter with you at your convenience.

Sincerely,



Enclosure

cc: John Davis (NRC-Acting Director I&E)
R. J. Pate (NRC-San Onofre Units 2 and 3)

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INTERIM REPORT ON TAYLOR FORGE PIPE DEFECTS

San Onofre Nuclear Generating Station
Units 2 and 3

INTRODUCTION

This interim report is submitted pursuant to 10CFR50.55(e)(3). It describes surface defects discovered in ASME III, Class 2 main steam piping for San Onofre Units 2 and 3. This interim report includes a description of the condition and the development of a program to investigate the nature and extent of the deficiency and corrective action to be taken.

BACKGROUND

By letter dated January 23, 1979, Edison confirmed notification to the NRC concerning a condition in construction of San Onofre Units 2 and 3. The condition involved surface defects discovered in carbon steel pipe (pipe tubes) manufactured by Taylor Forge of Paola, Kansas and subsequently used in fabrication and installation of main steam system pipe spools by Pullman Power Products (fabricator) and Bechtel Power Corporation (installer). The ASME B&PV Code Section III, Class 2 piping was manufactured in pipe tube sections 42- and 40-inch in diameter to material specification SA-155 KCF 70, Class 1. Approximately 840 feet of this piping was supplied for use in main steam systems at San Onofre Units 2 and 3.

A linear indication in the heat-affected zone of the longitudinal weld in a pipe tube was detected by Bechtel radiographs of a field welded joint between two piping spool pieces located in the Unit 3 main steam line. The indication was immediately upstream of the field weld joint between pipe spool pieces. Subsequent visual examination of the area showed a linear indication on both inside and outside surfaces of the pipe tube parallel to the piping longitudinal seam intersecting the Bechtel field weld.

Radiographs performed by Taylor Forge for the suspect pipe spool and all other spools were re-reviewed and indicated suspect areas in a total of 16 pipe tubes similar to those identified by the Bechtel radiographs.

Metallurgical samples of the originally detected defect have been taken from the pipe ID and OD area to determine the exact nature of the defects.

DISCUSSION

The following is responsive to 10CFR50.55(e)(3).

Description of Deficiency

Based on the results of the metallurgical examinations, the deficiency has been identified as a shallow fissure in the heat-affected zone of the longitudinal weld. The fissure can exist on the ID or OD surface of the pipe but runs parallel to the longitudinal pipe tube weld performed by Taylor Forge. The radiographs taken by Taylor Forge have been re-reviewed and appear to identify the fissure conditions. The conditions may not have been detected during initial review of the radiographs due to the close alignment of the linear indications with the weld overlay area.

Analysis of Safety Implications

The nature and extent of the surface fissures are continuing to be investigated and evaluated. Consequently, the significance of the safety implications will be discussed in the final report on this subject.

Corrective Action

Taylor Forge has re-examined all radiographs provided for the pipe tube sections supplied for the main steam piping. A total of sixteen pipe tube sections have been identified as being suspect. For these pipe tube sections, a program is currently being developed to investigate the nature and extent of surface fissures in the suspect areas and to repair all relevant indications as required by the ASME Code.

CONCLUSION

Investigations are in progress to identify the cause of the condition, the safety significance, if any, and the appropriate corrective action measures. These areas will be discussed in a final report to be submitted on this subject at a later date.