

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)  
DISTRIBUTION FOR INCOMING MATERIAL

50-361/362

REC: ENGELKEN R H  
NRC

ORG: MOORE J B  
S CA EDISON

DOCDATE: 07/14/78  
DATE RCVD: 08/07/78

DOCTYPE: LETTER NOTARIZED: NO

COPIES RECEIVED  
LTR 1 ENCL 1

SUBJECT:  
FORWARDING FINAL CONSTRUCTION DEFICIENCY REPT CONCERNING LACK OF FUSION  
DEFECT IN SA-312 TYPE 304 PIPING MATERIAL.

PLANT NAME: SAN ONOFRE -- UNIT 2  
SAN ONOFRE - UNIT 3

REVIEWER INITIAL: XJM  
DISTRIBUTER INITIAL: M

\*\*\*\*\* DISTRIBUTION OF THIS MATERIAL IS AS FOLLOWS \*\*\*\*\*

NOTES:

1. SEND ALL FSAR & ER AMENDMENTS TO L. CHANDLER

CONSTRUCTION DEFICIENCY REPORT (10CFR50.55E)  
(DISTRIBUTION CODE B019)

FOR ACTION: ASST DIR VASSALLO\*\*W/ENCL  
PROJ MGR ROOD\*\*W/ENCL

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INTERNAL: REG FILE\*\*W/ENCL  
I & E\*\*W/2 ENCL  
GOSSICK & STAFF\*\*W/ENCL  
DIRECTOR DPM\*\*W/ENCL  
QAB\*\*W/ENCL  
AD FOR ENG\*\*W/ENCL  
AD FOR PLANT SYSTEMS\*\*W/ENCL  
SD\*\*W/ENCL  
FERD DREHER/IE\*\*W/ENCL

NRC PDR\*\*W/ENCL  
OELD\*\*W/ENCL  
MIPC\*\*W/ENCL  
DEPUTY DIR DPM\*\*W/ENCL  
DIRECTOR DSS\*\*W/ENCL  
AD FOR REAC SFTY\*\*W/ENCL  
AD FOR SYS & PROJ\*\*W/ENCL  
K SEYFRIT/IE\*\*W/ENCL

EXTERNAL: LPDR'S  
MISSION VIEJO, CA\*\*W/ENCL  
REGION V - IE\*\*W/ENCL  
TERA\*\*W/ENCL  
NSIC\*\*W/ENCL  
ACRS CAT B\*\*W/16 ENCL

DISTRIBUTION: LTR 42 ENCL 42  
SIZE: 1P+2P

CONTROL NBR: 782220111

MA 160

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THE END

\*\*\*\*\*

**Southern California Edison Company**

SEE

P. O. BOX 800

2244 WALNUT GROVE AVENUE

ROSEMEAD, CALIFORNIA 91770

JACK B. MOORE  
VICE PRESIDENT

TELEPHONE  
213-572-2292

July 14, 1978

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 Boulevard  
Walnut Creek, California 94596

Dear Mr. Engelken:

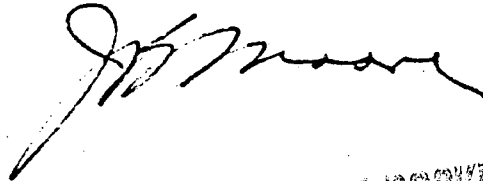
Subject: Docket Nos. 50-361 and 50-362  
San Onofre Nuclear Generating Station, Units 2 and 3

By letter dated June 19, 1978, we submitted an interim report concerning a reportable condition involving the lack of fusion of the longitudinal seam weld, in excess of that allowable, in nuclear piping delivered for construction use at San Onofre Units 2 and 3.

Enclosed, in accordance with 10CFR50.55(e), are twenty-five (25) copies of a final report concerning this matter entitled, "Final Report Concerning Lack of Fusion Defect in SA-312 Type 304 Piping Material, San Onofre Nuclear Generating Station, Units 2 and 3."

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

Very truly yours,



Enclosures

cc: Dr. Ernst Volgenau (NRC, Director I&E) ✓

REGULATORY DOCKET FILE COPY

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BORG  
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FINAL REPORT CONCERNING  
LACK OF FUSION DEFECT IN SA-312 TYPE 304 PIPING MATERIAL

San Onofre Nuclear Generating Station, Units 2 and 3

INTRODUCTION

By letter dated May 18, 1978, Southern California Edison confirmed notification to the NRC concerning a defect in SA-312 type 304 fusion welded piping material procured to ASME B&PVC Section III, Class 2 requirements. An interim report was submitted pursuant to 10CFR50.55(e) by letter dated June 19, 1978. This final report presents the analysis provided to determine the cause and actions taken to prevent recurrence of the condition.

DISCUSSION

The interim report referenced above included a description of the deficiency, analysis of safety implications and measures taken to identify the relation of the deficiency to other pipe supplied to the San Onofre project. In summary, one length of pipe supplied by SWEPCO Tube Corporation (SWEPCO), Clifton, New Jersey was discovered during visual inspection by Pullman Power Products, Paramount, California, to contain a lack of fusion defect open to the ID surface. The defective pipe section containing the defect was cut out and replaced with a new section of pipe. An investigation determined that the defect was an isolated occurrence and does not exist in other SWEPCO-supplied pipe at San Onofre Units 2 and 3.

The defective pipe section was returned to SWEPCO for analysis. The results of this analysis indicate that the lack of fusion defect was caused by a failure of the automatic welding machine to remain in proper alignment with the pipe ID surface during fusion welding operations. In addition, ultrasonic examinations by SWEPCO which would have detected such defects were inadvertently omitted due to personnel error. Corrective action measures taken by SWEPCO involve the addition of a complete boroscope inspection of the pipe weld area and institution of a strip recording chart for the

FINAL REPORT CONCERNING LACK OF FUSION DEFECT  
IN SA-312 TYPE 304 PIPING MATERIAL  
San Onofre Nuclear Generating Station, Units 2 and 3

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ultrasonic examinations to assure completeness of inspection acceptance activities. These measures provide assurance against recurrence of the deficiency.

CONCLUSION

Appropriate corrective action has been taken to correct the individual deficiency discovered and to prevent recurrence of the deficiency in similar supplied pipe material.