

130609/78

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: 06/19/78
DATE RCVD: 06/28/78

DOCTYPE: LETTER NOTARIZED: NO
SUBJECT:

COPIES RECEIVED
LTR 1 ENCL 1

FORWARDING CONSTRUCTION DEFICIENCY INTERIM 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: *W*

***** 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

BR CHIEF LWR#2 BC**W/ENCL
LIC ASST LWR#2 LA**W/ENCL

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
TIC**W/ENCL
NSIC**W/ENCL
ACRS CAT B**W/16 ENCL

TTCSC 1

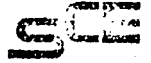
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CONTROL NBR: 781800008

BD

***** THE END *****

Southern California Edison Company



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JACK B. MOORE
VICE PRESIDENT

TELEPHONE
213-572-2292

June 19, 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 No. 50-361 and 50-362
San Onofre Nuclear Generating Station, Units 2 and 3

By letter dated May 18, 1978, we confirmed notification concerning a reportable condition in construction of San Onofre Units 2 and 3. The condition involved the discovery of a lack of fusion of the longitudinal seam weld, in excess of that allowable, of nuclear piping delivered for construction use.

Enclosed, in accordance with 10CFR50.55(e), are twenty-five (25) copies of an interim report concerning this matter entitled, "Lack of Fusion Defect in SA-312 Type 304 Piping Material, San Onofre Nuclear Generating Station, Units 2 and 3." A final report on this matter is scheduled for submittal by July 14, 1978.

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

Very truly yours,

REGULATORY DOCKET FILE

781900008

Enclosures

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

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5/11

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

INTRODUCTION

This report is submitted pursuant to 10CFR50.55(e)(3). It describes a defect in SA-312 Type 304 piping material procured to ASME B&PVC Section III, Class 2 requirements.

BACKGROUND

By letter dated May 18, 1978, Southern California Edison confirmed notification to the NRC concerning this defect. It involved a lack of fusion in the longitudinal seam weld of a length of 8-inch diameter, Schedule 20 pipe welded without filler metal. The pipe was manufactured by SWEPCO Tube Corporation (SWEPCO), Clifton, New Jersey (Certificate of Authorization N-1418 and Quality System Certificate N-1419) and supplied by Capital Pipe and Steel Co., Anaheim, California (Distributor No. D-7451-50N) to Pullman Power Products (Pullman), Paramount, California. The defect was identified during fabrication of a Containment Spray System spool piece for delivery to San Onofre Units 2 and 3. Required quality documentation, delivered with the pipe material indicated that it was fully conforming with procurement requirements.

DISCUSSION

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

Description of Deficiency

The length of pipe as received at Pullman was 17-feet long. Pieces were cut from this length to fabricate sections of piping spools. A lack of fusion in the longitudinal seam weld was discovered visually on ID of one piece during manufacture at Pullman. The lack of fusion extended a distance of 3-feet 6-inches from one end of the piece with a depth up to approximately 50 percent of the wall thickness.

The defective portion of the piece was removed and the balance of the approximately 8-foot long piece examined by radiography and accepted. All other pieces of the 17-foot length were located and examined as follows. A short piece in a spool

already sent to the field was returned to Pullman and accepted following ultrasonic and radiographic examination. A piece approximately 6-feet long at Pullman was examined visually and by liquid penetrant and returned to use. A second short piece was determined to be acceptable but was used by Pullman as a pulling end and scrapped.

Analysis of Safety Implications

The lack of fusion in the area of the defect was sufficient to violate required minimum wall thickness criteria. The intended use of the defective pipe was such that its failure in service could have led to loss of the Refueling Water Storage Tank inventory.

Corrective Action

As described above, all pieces of the original length of pipe were recovered and examined. In addition, 1,077-feet of material from SWEPCO at Pullman was visually examined on all accessible surfaces with no indication of any further lack of fusion defects. Prior visual inspection also has not identified such defects.

Accordingly, we have determined that this defect was an isolated occurrence and does not exist in other SWEPCO fusion welded pipe at San Onofre Units 2 and 3.

The defective piece has been returned for analysis by SWEPCO to determine what could have caused the defect and why it was not detected during manufacture. The material was ordered to SA-312 and supplemented by the requirements of ASME B&PVC, Section III, Paragraph NC-2500 which requires ultrasonic inspection of the longitudinal weld.

A final report following this analysis and report from SWEPCO is scheduled for submittal by July 14, 1978.