

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT  
WASHINGTON, D.C. 20555

IE Bulletin No. 79-03  
Date: March 12, 1979  
Page 1 of 3

LONGITUDINAL WELD DEFECTS IN ASME SA-312 TYPE 304 STAINLESS STEEL  
PIPE SPOOLS MANUFACTURED BY YOUNGSTOWN WELDING AND ENGINEERING COMPANY

Description of Circumstances:

On September 27, 1978, the Arizona Public Service Company reported that defects had been discovered in longitudinal welds in ASME Section III class 2 pipe supplied for the Palo Verde Nuclear Generating Station (PVNGS). On November 17, 1978, the Southern California Edison Company reported similar defects in pipe supplied for the San Onofre Nuclear Generating Station, Units 2 and 3.

Pullman Power Products of Los Angeles, California supplies safety-related fabricated piping spools of various diameters for the PVNGS. The defects were discovered by Pullman in ASME SA-312 type 304 stainless steel pipe supplied to Pullman by Youngstown Welding and Engineering Company of Youngstown, Ohio. The pipe is manufactured by rolling plate into cylinders and then fusion welding the longitudinal seam without filler metal.

Pullman discovered defects in the longitudinal welds while radiographing their circumferential shop welds. Further radiographic examination of the longitudinal welds revealed rejectable porosity and lack of fusion.

Pullman then performed ultrasonic examination of the full length of the longitudinal welds and discovered indications exceeding the acceptance criteria of ASME Section III. Further ultrasonic examination revealed indications in other piping subassemblies where pipe was supplied by Youngstown. Two indications verified by radiography were identified as porosity and measured 0.350 inch by 0.125 inch in one case and 0.300 inch by 0.125 inch in another case in pipe with a nominal wall thickness of 0.375 inch.

The additional examinations revealed that of 103 spools and four pipe supports shipped to PVNGS, 44 spools and one pipe support were found to contain ultrasonic indications exceeding the acceptance criteria of ASME Code. Of 65 partially fabricated pipe supports, 11 were found to be similarly defective. The acceptance criteria for Youngstown includes 100 percent ultrasonic examination.

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NUCLEAR REGULATORY COMMISSION  
REGION I  
631 PARK AVENUE  
KING OF PRUSSIA, PENNSYLVANIA 19406



March 8, 1979

Docket Nos. 50-289  
50-320

Metropolitan Edison Company  
ATTN: Mr. J. G. Herbein  
Vice President - Generation  
P. O. Box 542  
Reading, Pennsylvania 19640

Gentlemen:

The enclosed IE Bulletin No. 79-02 is forwarded to you for action.  
A written response is required. If you desire additional information  
regarding this matter, please contact this office.

Sincerely,

*Robert T. Calloway*  
for Boyce H. Grier  
Director

Enclosures:

- 1. IE Bulletin No. 79-02
- 2. Listing of IE Bulletins  
Issued in Last  
Twelve Months

cc w/encls:

- E. G. Wallace, Licensing Manager
- J. J. Barton, Project Manager
- R. C. Arnold, Vice President - Generation
- L. L. Lawyer, Manager - Generation Operations - Nuclear
- G. P. Miller, Superintendent
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- J. B. Logan, Unit 2 Superintendent
- G. A. Kunder, Unit 2 Superintendent - Technical Support
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