

PRELIMINARY NOTIFICATION

May 24, 1979

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE--PNO-79-123

This preliminary notification constitutes EARLY notice of an event of POSSIBLE safety or public interest significance. The information presented is as initially received without verification or evaluation and is basically all that is known by IE staff on this date.

Facility: American Electric Power Service Corporation
Indiana & Michigan Power Company
D. C. Cook, Unit 2 (DN 50-316), Bridgman, MI

Subject: FEEDWATER SYSTEM PIPE CRACKS

D. C. Cook 2 was shutdown on May 19, 1979, to investigate nonradioactive leakage (3 ppm) inside the containment building. The licensee found thru-wall circumferential cracks in the heat affected zone of the weld connecting the feedwater line to the nozzle on the 1 and 4 steam generators of Unit 2. The licensee started to grind out the cracks before the NRC piping and NDE inspector arrived onsite. At the inspectors request, the licensee agreed to stop repair work until the licensee's metallurgist had an opportunity to examine the cracks and determine the cause. No estimate of the repair time has yet been made.

Subsequent NDE (radiographs) revealed the following crack indications:

Unit 2

S/G 1 circumferential crack, 340 to 360 to 190 degrees
S/G 2 circumferential crack, 300 to " to 10 degrees
S/G 3 circumferential crack, 250 to " to 60 degrees
S/G 4 circumferential crack, 260 to " to 30 degrees

Unit 1

S/G 1 circumferential crack, 350 to " to 5 degrees
S/G 2 circumferential crack, 200 to " to 55 degrees
S/G 3 circumferential crack, 340 to " to 40 degrees, transverse crack at 110 degrees
S/G 4 NDE not yet done

The cracks appear to be originating at the pipe interior surface and propagating to the outer surface.

The feedwater lines are 16 inch carbon steel lines. Seven of the line to nozzle welds have a backing ring. The weld on Unit 2, S/G 1 is a buttweld without a backing ring. Radiographs also show the backing ring Unit 1, S/G2 to be broken in one spot and part of the backing ring is bent over.

Boat samples have been cut from Unit 1, S/G 3 and Unit 2, S/G 1. One sample has been sent to Westinghouse for examination and the other sample has been sent to the Chicago Service Laboratory.

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The licensee plans to cut the feedwater line to SG/1 on Unit 2 and measure the stresses between the pipe and the nozzle. The licensee also plans to perform additional ultrasonic testing and is identifying a NDE program for other feedwater line welds.

A State of Michigan representative arrived onsite May 23, 1979.

Both the licensee and RIII have made press releases previously.

This information was provided by NRC inspectors onsite and is current as of 2:00 p.m., May 23, 1979.

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