

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE--PNO-V-87-40

Date: 05/26/87

This preliminary notification constitutes EARLY notice of events 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 Region V staff on this date.

FACILITY: Portland General Electric Co.  
Trojan  
Docket No. 50-344  
Portland, Oregon

Licensee Emergency Classification  
\_\_\_\_ Notification of Unusual Event  
\_\_\_\_ Alert  
\_\_\_\_ Site Area Emergency  
\_\_\_\_ General Emergency  
XX Not Applicable

SUBJECT: ACCUMULATOR FILL LINE FAILURE

On May 23, 1987, at 4:30 pm, during a refueling outage in Mode 6, the licensee experienced a complete 360° circumferential break of the "A" SI accumulator fill line while transferring water from the "A" to "D" SI accumulators through the respective fill lines. Water was being removed from the "A" accumulator following completion of a hydrostatic pressure test. Initial "A" accumulator conditions were 650 psig and greater than 100% narrow range level while "D" accumulator was non-vented at 0 psig and 60% level. This is the second failure experienced on the "A" SI accumulator fill line. The first occurred on May 12, 1987, while conducting the same process of transferring water from the "A" to "D" accumulators and was reported in PNO-V-87-37. The licensee replaced the fill line piping and on May 23 conducted a post-maintenance hydrostatic pressure test. Examination of the failed pipes indicated that both failures occurred in the heat affected zone of the pipe immediately upstream of the socket weld to the accumulator. Metallurgical examination by the licensee of the first failed pipe concluded that low cycle, high load fatigue was the failure mechanism.

The licensee is currently conducting detailed engineering analyses to determine the forces and fatigue cycles imposed upon the accumulator fill lines. The results of these analyses should help to confirm the failure mechanism and indicate the necessary corrective actions, including modifications to the fill line piping supports. The licensee is currently conducting metallurgical examinations of the second failed pipe. The licensee's engineering analysis on the first weld failure had not yet been completed when the second failure occurred.

The licensee plans to include this event in their weekly news release.

This information is current as of 11:00 am (PDT) on May 26, 1987.

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(Revised 3/14/83)

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