

May 8, 1990

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-IV-90-20

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. The information is as initially received without verification or evaluation, and is basically all that is known by the Region IV staff on this date.

FACILITY: Houston Lighting & Power Co.
South Texas Project, Unit 2
Docket: 50-499

Licensee Emergency Classification:
 Notification of Unusual Event
 Alert
 Site Area Emergency
 General Emergency
 Not Applicable

SUBJECT: REACTOR COOLANT SYSTEM PRESSURE BOUNDARY LEAKAGE

At 12:30 a.m., on May 8, 1990, the licensee declared an unusual event as a result of a Technical Specification-required shutdown of Unit 2. The Technical Specifications require that no pressure boundary leakage from the reactor coolant system be allowed. The licensee has determined that a weld between a 3/4-inch steam generator bottom head drain line and a valve is leaking. The 3/4-inch line has a 3/8-inch flow restricting orifice attached to a 3/4-inch tap on the steam generator primary side. The valve is a KERO-test packless diaphragm valve.

On April 22, 1990, the Unit 2 control room received an alarm on a containment atmosphere radioactivity monitor. A containment inspection was performed but no leak could be found. On April 25, 1990, another containment inspection was performed and water was found on the floor beneath the "C" steam generator. Initial estimates indicated a leak of about 10 drops per minute. This small amount of leakage was not detectable using normal RCS leakage rate calculations. Since the leak was inside the biological shield in an area indicating about 20 rem per hour, the licensee obtained a robot to attempt to identify the leakage source.

On Saturday, May 5, 1990, the robot located the source of the leakage as the drain line but was unable to verify the exact leak location. On May 7, 1990, the licensee lowered a camera down the side of the steam generator and noted that the source of the leak appeared to be the weld. In order to verify the source of the leak with certainty, the licensee lowered reactor power to 14 percent and sent a team into containment behind the biological shield to get in close proximity of the leak. The team determined that a reactor coolant system pressure boundary leak existed and the licensee commenced a reactor shutdown.

The licensee estimates a restart at the unit on May 22, 1990. This restart is contingent on determining the root cause of the weld failure and taking appropriate corrective action to preclude another failure. The other steam generator drain lines on both units will also be inspected prior to restart of the units.

The licensee plans to issue a press release. The NRC does not plan to issue a press release.

The state of Texas will be informed.

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RDMartin
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PDR I&E
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Region IV received notification of this occurrence by telephone from the Headquarters Operations Officer. Region IV has informed the EDO, NRR, and PA.

This information has been confirmed with a licensee representative.

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Licensee (Reactor)

MAIL: DCS (Orig. IE34)
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(5520: 5/9/90 @ 1:00
Regions & HQ)