

April 18, 1989

JSC

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-IV-89-28

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: Arkansas Power & Light Company
Arkansas Nuclear One, Unit 2
Docket No.: 50-368

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

SUBJECT: SHUTDOWN GREATER THAN 48 HOURS

At approximately 9:41 a.m. (CDT), Arkansas Nuclear One (ANO), Unit 2, tripped from 100 percent reactor power because of a trip of the main turbine. The turbine trip was caused by the automatic tripping of the electrohydraulic control system (EHC) trip valve. Although the cause of the tripping of the EHC trip valve is not known, the licensee suspects that it was tripped on high turbine hood temperature. High hood temperature is suspected to have been caused by steam from a leak in a high energy steam extraction line. This steam leak occurred from an approximately 180 degree "fishmouth" pipe wall rupture (approximately 3-4 inches wide) below the weld that joins a 14-inch diameter steam extraction line to the high pressure turbine. The steam extraction line rupture was apparently caused by erosion of the pipe wall. Some piping insulation was blown off the pipe as a result of the leak and steam was observed in the overhead of the turbine building. Apparently, no personnel were injured or any other equipment was damaged.

No automatic actuation of the engineered safety features (ESF) equipment occurred; however, as part of the initial operator response, main feedwater supply was isolated to the steam generators (SGs) because it was not known whether the type of leak was steam or feedwater. After isolating main feedwater, the licensee manually started the emergency feedwater (EFW) pumps to maintain SG water level. The turbine driven EFW pump (2P7A), however, tripped on overspeed following manual start. The cause of the overspeed is not known. The pump was reset and restarted and both the turbine driven and motor driven EFW pumps were operated to maintain SG water level.

No other complications were noted following the reactor trip. Currently, the plant is in Mode 3 (hot standby) and the plant is being cooled down to cold shutdown by use of the atmospheric dump valves (ADVs). The NRC resident inspector and two Region IV based inspectors, who were already onsite, are monitoring licensee actions. A Region-based specialist is being dispatched to the site to investigate the steam pipe rupture. The region will assess additional NRC response as deemed appropriate.

The licensee is issuing a statement about the Unit 2 shutdown. Region IV is prepared to respond to media inquiries.

The state of Arkansas has been informed.

JSC for
AC:DRP/A
ATHowell;df
4/18/89

JSC for
D:DRP for
LJCallan
4/18/89

RA (14)
RDMartin
4/18/89

1E34 0/1

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PDR I&E
PNO-IV-89-028 PNU

Region IV received notification of this occurrence by telephone from the resident inspector at 10:45 a.m. on April 18, 1989. Region IV has informed NRR and the office of the EDO.

This information has been confirmed with a licensee representative.

CONTACT: A. Howell, 728-8180

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