

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 staff on this date.

Facility: Duane Arnold Nuclear Power Plant
Iowa Electric Light & Power Co.
Cedar Rapids, IA 52324

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

Docket No: 50-331

Subject: STARTUP TRANSFORMER TRIP AND PLANT TRIP - UPDATE

The licensee reported that the startup transformer water deluge system was actuated at about 0649, November 23, 1984. The fire pump annunciation was followed by a transformer trip and reactor trip. All systems responded normally to the reactor trip. A high phase 2 differential current annunciator was received at about the same time as the transformer trip. The Resident Inspector responded to the event and reported the deluge system had actuated but that there was no evidence of fire or damage to the transformer.

The cause of the deluge system actuation has been determined and corrected. One of the four transformer oil rate-of-temperature rise detectors was not completely seated resulting in a pneumatic leak-off of air pressure to atmosphere. This coupled with a sticking air supply regulator resulted in the sufficient loss of air pressure on the main deluge valve pilot to cause the deluge valve to open. Both the rate-of-rise detector and the regulator have been replaced and tested. All other rate-of-rise detectors have been tested and found to be operating properly.

The cause for the transformer isolation has been determined. A phase 2 differential to ground trip resulted from an arc-over from the phase 2 incoming 161 KV line to ground due to the high conductivity of the deluge system water (river water). A complete examination and testing of the Start Up transformer by a team of licensee transformer specialists indicates that the transformer is completely operable.

In a conference call of 11/24/84 between IE headquarters, the licensee, the two Region III Specialists on-site, and Region III management, it was concluded that all observations, testing, and data indicate that the Start-Up transformer was fully operable and that the cause for the deluge system actuation had been identified and corrected. The unit was restarted at 2:00 p.m. on November 25, 1984.

The State of Iowa will be notified.

This information is current as of Noon (CST), November 26, 1984.

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