

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 that which is known by the staff on this date. ^{DMB}

Facility: Duane Arnold Nuclear Power Plant
Iowa Electric Light & Power Company
Cedar Rapids, IA

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

Docket No. 50-331

Subject: AUXILIARY TRANSFORMER FAILURE (UPDATE)

At 1:34 a.m. (CST) on Sunday, November 4, 1984, while operating at 58% power, the facility experienced an explosion and fire in the plant's auxiliary transformer. This resulted in the loss of power to the station's non-essential buses and caused a turbine control valve fast closure which resulted in a reactor trip. All systems responded to the trip as required and no other problems were experienced with the plant shutdown. The reactor is currently in cold shutdown.

In the PN which was issued on November 5, 1984, the cause of the "lock-out" on the Start Up transformer output breaker initially was believed to be a combination of the explosion and heat from the auxiliary transformer and water from the deluge system. Further analysis by the licensee proved this to be incorrect. The actual cause was damage to the insulators and a buildup of carbon soot on two of the three 161 KV lines adjacent to the auxiliary transformer. This damage and soot was caused by the fire from the burning oil in the auxiliary transformer and caused a phase to ground short which caused the Start Up transformer to isolate, as designed.

Corrective action by the licensee involved replacing the cracked insulators and cleaning the 161 KV lines. They also conducted several qualification tests on the Start Up transformer to ascertain that it was functionally operable. Similar tests are being conducted on the standby transformer and will be conducted on the main output transformer. Because the auxiliary transformer is not required by technical specifications, the licensee will restart the reactor when it completes its testing (startup is expected Wednesday or Thursday).

A Westinghouse representative is on site to determine the cause of the transformer failure.

The Office of Nuclear Reactor Regulation has been kept informed of the status of the event.

The Region III Section Chief responsible for DAEC is on site. The State of Iowa will be notified. This information is current as of 2:00 p.m. (CST) November 6, 1984.

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