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 FACIL: 50-331 Duane Arnold Energy Center, Iowa Electric Light & Pow 05000331
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 MINECK, D.L. Iowa Electric Light & Power Co.
 RECIP. NAME RECIPIENT AFFILIATION
 MURLEY, T.E. Office of Nuclear Reactor Regulation, Director (Post 870411)

SUBJECT: Advises of decision not to revise surveillance test procedure or to modify logic circuitry.

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Iowa Electric Light and Power Company

July 31, 1990
NG-90-1739

Mr. Thomas E. Murley, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-137
Washington, DC 20555

Subject: Duane Arnold Energy Center
Docket No: 50-331
Op. License No: DPR-49
NRC Generic Letter 89-19, "Request for Action
Related to Resolution of Unresolved Safety
Issue A-47 'Safety Implication of Control
Systems in LWR Nuclear Power Plants' Pursuant
to 10 CFR 50.54(f)," dated September 20, 1989
Reference: Letter from D. Mineck (IELP) to Dr. T. Murley
(NRC), NG-90-1089, dated May 4, 1990
File: A-I01b, C-31

Dear Mr. Murley:

In the referenced letter, we responded to NRC Generic Letter 89-19. We stated that we would revise an existing Surveillance Test Procedure (STP) for calibrating the vessel level instruments to include testing of the high vessel level trip function. This function trips the Main Turbine and secures the Reactor Feed Pumps to prevent the introduction of water to the main steam lines. This test has previously been performed as a calibration under our Preventive Maintenance Program during each refuel outage. The proposed STP revision would have included the test with calibration of the associated vessel level instrumentation and increased the frequency of the test from every refuel outage (nominally every 18 months) to once per six months.

During the review process for revising the STP, we discovered that there is no means to determine the status of alternate channel relay contact without major modifications to the logic circuitry. The high vessel level trip logic is a 2-out-of-3 arrangement. In the event that one of the alternate channels was in a failed condition during the test, a spurious trip of both the Reactor Feed Pumps and Main Turbine would occur. The resultant transient would challenge several engineered safety features and would likely result in a reactor scram.

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Mr. Thomas Murley
July 31, 1990
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A review of the maintenance history of the trip units revealed no instances in which the units were out of their specified tolerance. This calibration history is ample justification for retaining the 18 month test interval for the high vessel level trip function. The instrumentation feeding the trip units will still be tested every six months as required by DAEC Technical Specifications using the unrevised STP.

Although we initially committed to revising the STP to include the high vessel level trip test, we have concluded that the benefit of increasing the frequency of this test does not justify the risk of a Turbine Trip and Feed Pump Trip during power operation. Therefore, based on the trip units maintenance history, we have chosen not to revise the STP or modify the logic circuitry.

Very truly yours,



Daniel L. Mineck
Manager, Nuclear Division

DLM/SRC:DMB*

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