

IOWA ELECTRIC LIGHT AND POWER COMPANY

General Office

CEDAR RAPIDS, IOWA
DUANE ARNOLD ENERGY CENTER
PALO, IOWA
OCTOBER 31, 1974
DAEC 74 - 382

Mr. James Keppler, Director
Regulatory Operations Regional Office
U. S. Atomic Energy Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

SUBJECT: Abnormal Occurrence No. DPR 50-331/74-47
FILE: A-110, A-118a

Dear Mr. Keppler:

In accordance with DAEC Technical Specifications, Specification 6.11.2.A.1, this letter is intended as notification of an abnormal occurrence at the Duane Arnold Energy Center on October 30, 1974. This letter, telecopied to your office, is intended to satisfy the requirement for notification by telegram within 24 hours of identification of the abnormal occurrence.

Identification of Occurrence

Trip level settings for RCIC Turbine High Flow and HPCI Turbine Steam Line High Flow (Table 3.2-B), reportable in accordance with Operating License DPR-49, Appendix A, Specification 1.0.4.d.

Description of Occurrence

The DAEC Safety Analysis criteria for determining the subject trip level settings is based on automatically closing the subject steam line valves at 300% steam flow in the RCIC and HPCI steam lines to prevent core uncover and insure that fission product release is within limits in the event of a HPCI or RCIC line break. It has been determined that the trip level settings of + 180 inches of water for RCIC and + 225 inches of water for HPCI correspond to steam flows greater than 300%.

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The trip level settings presently in the Technical Specifications were based on a 3-inch steam line for RCIC and an 8-inch steam line for HPCI. The steam line sizes are actually 4-inch and 10-inch, respectively, for RCIC and HPCI.

Corrective Action

A Technical Specification change request is being prepared to correct the trip level settings. The original trip level settings were the result of design calculations which were inadvertently based on incorrect steam line sizes. This calculation has been repeated using correct steam line sizes subsequent to discovery of the error. The resulting trip level settings are 110 and 100 inches of water for RCIC and HPCI respectively. However, response of the subject elbow taps observed during startup testing is not in all cases consistent with design expectations. Therefore, investigation to determine trip level settings compatible with the design intent is continuing. In the interim, the trip levels have been set to 110 and 100 inches of water for RCIC and HPCI respectively. Subsequent to the change of setpoint, both RCIC and HPCI were demonstrated to be operable by repeating applicable portions of the Startup Test Instructions.

A formal written report will be submitted to the Office of the Directorate of Regulatory Operations within 10 days of the identification of the subject abnormal occurrence.

Very truly yours,

Ellery L. Hammond
 Ellery L. Hammond
 Assistant Chief Engineer
 Duane Arnold Energy Center

OCS/ELH/mg

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