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RECIP.NAME RECIPIENT AFFILIATION
MURLEY,T.E. Office of Nuclear Reactor Regulation, Director (Post 870411

SUBJECT: Application for amend to License DPF-49,consisting of Request for TS Change (RTS-247),removing RPS electrical protection assembly time delay requirements from Tech Spec.

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Iowa Electric Light and Power Company

March 13, 1992

NG-92-1269

Dr. Thomas E. Murley, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
M/S P1-137
Washington, D.C. 20555

Subject: Duane Arnold Energy Center
Docket No: 50-331
Op License No: DPR-49
Request for Technical Specification Change
(RTS-247): Removal of RPS Electrical
Protection Assembly Time Delay Requirements
File: A-117, C-71

Dear Dr. Murley:

In accordance with the Code of Federal Regulations, Title 10, Sections 50.59 and 50.90, Iowa Electric Light and Power Company (IELP) hereby requests revision of the Technical Specifications (TS) for the Duane Arnold Energy Center (DAEC).

The proposed change would remove the Reactor Protection System (RPS) Electrical Protection Assembly (EPA) time delay requirements from the TS. Revised EPA time delay requirements will be incorporated into the DAEC Updated Final Safety Analysis Report (UFSAR). In combination, these changes will enhance operational safety by minimizing spurious EPA trips and facilitate equipment modifications designed to enhance EPA performance and testing capabilities.

This application has been reviewed by the DAEC Operations Committee and the DAEC Safety Committee. Pursuant to the requirements of 10 CFR 50.91, a copy of this submittal, including the analysis which concludes that there are no significant hazards considerations, is being forwarded to our appointed state official.

Should you have any questions regarding this matter, please contact this office.

A001 1/1

This letter is true and accurate to the best of my knowledge and belief.

IOWA ELECTRIC LIGHT AND POWER COMPANY

By John F. Franz, Jr.
John F. Franz, Jr.
Vice President, Nuclear

State of Iowa
(County) of Linn

Signed and sworn to before me on this 13th day of March, 1992, by John F. Franz, Jr.

Kathleen M. Furman
Notary Public in and for the State of Iowa

September 28, 1992
Commission Expires

JFF/LRH:so

Attachments:
1) Evaluation of Change With Respect to 10 CFR 50.92
2) Proposed Change RTS-247 to the Duane Arnold Energy Center Technical Specifications
3) Environmental Consideration
4) Safety Assessment
5) GE-NE-909-013-0392, Dated March 11, 1992; DRF C71-00089; Subject: Review of Components Powered by the Reactor Protection System 120Vac Buses for Acceptability of Electrical Protection Assembly Extended Time Delay Settings

cc: L. Heckert
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S. Brown (State of Iowa)
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NRC Resident Office

EVALUATION OF CHANGE PURSUANT TO 10 CFR 50.92

Background:

The Reactor Protection System (RPS) Electrical Protection Assemblies (EPAs) were originally installed to provide Class 1E electrical protection for RPS components powered from non-Class 1E power supplies. Specifically, the EPAs are designed to disconnect RPS bus loads from the primary or alternate power sources in the event of a sustained over voltage, under voltage or under frequency condition. The Limiting Conditions for Operation (LCOs), surveillance requirements and trip settings for this equipment were incorporated into the DAEC Technical Specifications (TS) by Amendment 79.

Iowa Electric Light and Power Company (IELP) elected to include a 115 +/-15 millisecond time delay in TS for each of the three types of protective trips. This value was consistent with General Electric's (GE's) original installation specifications and represented the minimum time delay permitted by the design of the EPAs.

Subsequently, GE has revised its position regarding EPA time delay settings. In Service Information Letter (SIL) No. 496, Revision 1, "Electrical Protection Assembly Performance," GE acknowledged specific EPA performance problems and made several recommendations including the use of longer time delay settings. Longer time delays would increase the stability of the alternate source to the RPS bus and would prevent premature and spurious trips from occurring during routine switching operations.

The longer time delays are supported by a GE study on the capabilities of the RPS bus components to tolerate abnormal voltages and frequencies. That study concluded that over voltage, under voltage and under frequency conditions can exist for up to four (4) seconds with acceptable results. IELP commissioned GE to conduct a further study with respect to the specific RPS bus loads at the DAEC. In GE-NE-909-013-0392 (Attachment 5), GE evaluated DAEC loads that were beyond the scope of the original study and concluded that these loads would also tolerate abnormal voltage and frequency conditions for up to four (4) seconds. IELP has reviewed these results and found them to be an acceptable basis for extending the current time delay requirements.

GE SIL No. 496 also recommended several modifications to the EPAs to further improve equipment performance and testing capabilities. IELP has determined that some of these modifications would be beneficial to EPA performance at the DAEC. In addition, we have identified certain improvements in our testing methodology which would provide improved accuracy in our testing results. These improvements in testing methodology and the desired equipment modifications cannot, however,

be implemented until the overly restrictive time delay requirements currently in effect have been changed.

We propose that the current EPA time delay requirements be deleted from TS, a change which is consistent with the Standard Technical Specifications. All other EPA surveillance requirements will remain intact. Revised time delay requirements will be incorporated into the DAEC Updated Final Safety Analysis Report (UFSAR) in order to ensure that any future revision of these values is reviewed in accordance with 10 CFR 50.59. Specifically, the UFSAR will require EPA time delay settings to be maintained at no more than 3.8 seconds. This requirement is consistent with the generic and DAEC-specific studies, and allows a conservative 0.2 seconds for the operation of the EPA output breaker.

Iowa Electric Light and Power Company, Docket No. 50-331

Duane Arnold Energy Center, Linn County, Iowa

Date of Amendment Request: March 13, 1992

Description of Amendment Request:

The proposed license amendment would delete the RPS EPA time delay requirements currently located in TS Section 4.1.B.2.

Basis for proposed no significant hazards consideration:

The Commission has provided standards (10 CFR 50.92(c)) for determining whether a significant hazards consideration exists. A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

In reviewing this proposed request for Technical Specification change, we have concluded:

(1) The proposed change will not increase the probability or consequences of an accident previously evaluated. IELP has determined that RPS bus loads at the DAEC can tolerate an under voltage, over voltage or under frequency condition for up to four (4) seconds with acceptable results. The requirement to maintain EPA time delays no greater than 3.8 seconds will be incorporated into the DAEC UFSAR. This will ensure that adequate protection is provided for RPS bus components and that those components will be capable of performing their design function.

(2) The proposed change will not create the possibility of a new or different kind of accident from any accident previously evaluated. The functionality of the RPS EPAs remains unchanged. Time delay settings of 3.8 seconds or less will be required by the proposed changes to the DAEC UFSAR to ensure that adequate protection is provided for RPS bus components. Therefore, no new equipment failures or accidents are introduced.

(3) The proposed change will not involve a significant reduction in the margin of safety. A detailed review of RPS bus components verified that abnormal voltage and frequency conditions can be tolerated for up to four (4) seconds. Since the requirement to maintain EPA time delays no greater than 3.8 seconds will be incorporated into the DAEC UFSAR, the assumptions of the safety and accident analysis regarding RPS bus loads are met.

Based on the above, we conclude that the proposed Amendment does not involve a significant hazards consideration.

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Attorney for Licensee: Jack Newman, Kathleen H. Shea, Newman and Holtzinger, 1615 L Street NW, Washington, DC 20036