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Iowa Electric Light and Power Company

December 11, 1992
NG-92-5391

JOHN F. FRANZ, JR.
VICE PRESIDENT, NUCLEAR

Dr. 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
Request for Technical Specification Change (RTS-253): Revision of RPS EPA Surveillance Intervals

Reference: NRC Generic Letter 91-09: "Modification of Surveillance Interval for the Electrical Protective Assemblies in Power Supplies for the Reactor Protection System", dated June 27, 1991

File: A-117

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 hereby requests revision of the Technical Specifications (TS) for the Duane Arnold Energy Center (DAEC).

The proposed change incorporates a revised surveillance interval for the Reactor Protection System (RPS) Electrical Protection Assembly (EPA) channel functional test, consistent with the guidance in the referenced Generic Letter. In addition, we are proposing a revised surveillance interval for the RPS EPA channel calibration. These changes will enhance operational safety by eliminating EPA testing during power operations, thereby reducing the potential for inadvertent trips and challenges to safety systems.

This application has been reviewed by the DAEC Operations Committee and 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.

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

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.
Vice President, Nuclear

State of Iowa
(County) of Linn

Signed and sworn to before me on this 11th day of December, 1992, by Mary Michele O'Neal.

_____
Notary Public in and for the State of Iowa

MARY MICHELE O'NEAL
MY COMMISSION EXPIRES
6-8-95

June 8, 1995
Commission Expires

JFF/LRH/pjv

Attachments:
1) Evaluation of Change With Respect to 10 CFR 50.92
2) Proposed Change RTS-253 to the Duane Arnold Energy Center Technical Specifications
3) Safety Assessment
4) Environmental Consideration

cc: L. Heckert
L. Liu
L. Root
R. Pulsifer (NRC-NRR)
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S. Brown (State of Iowa)
NRC Resident Office
Commitment Control No. 920031
DCRC

EVALUATION OF CHANGE WITH RESPECT TO 10 CFR 50.92

Background:

The Reactor Protection System (RPS) Electrical Protection Assemblies (EPAs) 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 an over-voltage, under-voltage or under-frequency condition. The Limiting Conditions for Operation (LCOs) and Surveillance Requirements for the RPS EPAs are located in Sections 3.1.B and 4.1.B of the DAEC Technical Specifications (TS).

The EPA surveillance requirements consist of a channel functional test performed every six months and a channel calibration performed annually. Both of these procedures require that RPS power be transferred from the associated RPS motor generator (MG) set to the alternate power supply. This transfer of power involves a dead-bus transfer which momentarily interrupts power to that RPS bus and causes a half scram and system isolations to occur. The time spent in these half-tripped conditions increases the potential for inadvertent scrams and group isolations that challenge safety systems.

On June 27, 1991 the NRC issued Generic Letter (GL) 91-09, "Modification of Surveillance Interval for the Electrical Protective Assemblies in Power Supplies for the Reactor Protection System." This GL recommends revising the frequency for performing the channel functional test of the RPS EPAs. It recommends that this surveillance be performed each time the plant is in cold shutdown for a period of more than 24 hours, unless the test has been performed in the previous six months. This eliminates the need to perform this test during power operation and reduces the potential for inadvertent scrams and isolations.

With regard to the channel calibration, GL 91-09 assumes that the licensee uses the Standard Technical Specification (STS) calibration interval of once every 18 months. However, as mentioned above, the DAEC TS require an annual calibration. This was based on the original model EPA Technical Specifications. The NRC subsequently revised the model TS to require calibration every 18 months. This eliminated the need to perform the calibration at power, consistent with the intent of GL 91-09.

The EPA calibration procedure, like the channel functional test, requires that RPS power be transferred to the alternate power source. Thus, the same concerns regarding the potential for inadvertent scrams and isolations apply. In light of these

concerns, we evaluated extending the calibration interval to once every operating cycle. For the purpose of designating surveillance frequencies, the DAEC TS define an operating cycle as 18 months. Our evaluation showed that the setpoint drift associated with the proposed calibration interval is adequately provided for using our current in-plant trip settings. The drift data in our current setpoint methodology has subsequently been revised to reflect the 18 month calibration interval. We are hereby proposing that the EPA calibration interval be extended to "once per OPERATING CYCLE," consistent with the intent of the STS.

Iowa Electric Light and Power Company, Docket No. 50-331,
Duane Arnold Energy Center, Linn County, Iowa
Date of Amendment Request: December 11, 1992

Description of Amendment Request:

The proposed license amendment would extend the RPS EPA surveillance intervals for the channel functional test and the channel calibration (TS Section 4.1.B). The channel functional test interval is being extended in accordance with GL 91-09. The channel calibration interval is being extended to 18 months, which is consistent with STS.

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 amendment will not increase the probability or consequences of an accident previously evaluated. The proposed amendment extends the surveillance interval for the RPS EPA channel functional test from 6 months to a maximum of 18 months and extends the channel calibration interval from 12 months to an operating cycle (18 months). This amendment will have no adverse affect on the ability of the Reactor Protection System and Primary Containment Isolation System to perform their intended safety functions. The

proposed surveillance frequencies will reduce the amount of time the plant is in a half scram condition and vulnerable to challenges to plant shutdown systems. As stated by the NRC in GL 91-09, this more than offsets any increased risk associated with the extended surveillance interval, resulting in a net increase in plant safety.

2) The proposed amendment will not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed amendment requires no plant modifications, does not alter the function of any affected systems, and creates no new mode of plant operation. The design capabilities of affected systems and components are not challenged in a manner which has not been previously addressed. Therefore, no new equipment failures or accidents are introduced.

3) The proposed change will not involve a significant reduction in the margin of safety. As stated by the NRC in GL 91-09, any increased risk associated with the extended functional test surveillance interval is more than offset by the safety benefits associated with the reduction in safety system challenges. The extended channel calibration interval is necessary to eliminate RPS EPA testing during power operation and realize those same safety benefits. Since the proposed surveillance intervals are accounted for in our setpoint methodology, the reliability of the RPS EPAs is unaffected by this change. Therefore, the proposed change would result in a net increase in plant safety and would not involve a reduction in the margin of safety.

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

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