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 MCGAUGHY, R.W. Iowa Electric Light & Power Co.
 RECIP. NAME RECIPIENT AFFILIATION
 DENTON, H.R. Office of Nuclear Reactor Regulation, Director

SUBJECT: Application for amend to License DPR-49, changing Tech Specs re surveillance requirements for low-low set logic function Proposed Change RTS-155 to Tech Spec encl.

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Iowa Electric Light and Power Company
August 26, 1983
NG-83-2810

Mr. Harold Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Duane Arnold Energy Center
Docket No: 50-331
Op. License No: DPR-49
Surveillance Requirements for the Low-Low Set
Logic Function

Dear Mr. Denton:

Transmitted herewith, in accordance with the requirements of 10 CFR 50.59 and 10 CFR 50.90, is an application for amendment to Appendix A (Technical Specifications) to Operating License DPR-49 for the Duane Arnold Energy Center.

In the Safety Evaluation Report for Amendment #89 (Load Case Avoidance), the Staff requested that surveillance requirements on the LLS function be added to the Technical Specifications within four months of the date of issuance of the amendment. Iowa Electric Light and Power Company agreed, in our letter of April 21, 1983 (NG-83-1475), to submit the requested Technical Specifications within the given time period. The enclosed changes to the Technical Specifications are being submitted in response to this commitment.

The enclosed amendment request, RTS-155, has been reviewed by the Duane Arnold Energy Center Operations Committee and the Safety Committee. This is a Class II amendment and a check for \$1,200 is enclosed.

Three signed and 37 additional copies of this application are transmitted herewith. Pursuant to the requirements of 10 CFR 50.91, a copy of this application and analysis of no significant hazards considerations is being sent to our appointed state official. This application, consisting of the foregoing letter and enclosures, is true and accurate to the best of my knowledge and belief.

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Mr. Harold Denton
August 26, 1983
NG-83-2810
Page Two

IOWA ELECTRIC LIGHT AND POWER COMPANY

BY Richard W. McGaughy
Richard W. McGaughy
Manager, Nuclear Division

Subscribed and sworn to Before Me on
this 26th day of August, 1983.

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

RWM/RAB/dmh*

Enclosures: Proposed Change RTS-155
Evaluation of Change 10 CFR 50.92
Technical Specification pages: 1.1-4, 1.2-2, 3.2-26, 3.2-27,
3.6-6, 3.6-28, 3.6-29, 3.6-41

cc: R. Browning
L. Liu
S. Tuthill
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T. Hovenagle
NRC Resident Office
Commitment Control No. 83-0095

PROPOSED CHANGE RTS-155
TO THE
DUANE ARNOLD ENERGY CENTER
TECHNICAL SPECIFICATIONS

The holders of License DPR-49 for the Duane Arnold Energy Center propose to amend Appendix A (Technical Specifications) to said license by deleting current pages and replacing them with the attached new pages. A list of the affected pages is given below.

As part of the Mark I Containment Modification Program a Low-Low Set (LLS) function was added to the DAEC Safety/Relief Valve (S/RV) system during the last refueling outage. A description of the LLS function and supporting analyses were submitted to the NRC as part of the License Amendment request on Containment Load Case Avoidance. In the Safety Evaluation Report for Amendment #89 (Load Case Avoidance), the Staff requested that surveillance requirements on the LLS function be added to the Technical Specifications within four months of the date of issuance of the amendment. Iowa Electric agreed, in our letter of April 21, 1983 (L. Root to H. Denton, NG-83-1475), to submit the requested Technical Specifications within the given time period. The enclosed changes to the Technical Specification are being submitted in response to this commitment.

Also included is a page that was inadvertently omitted from the original submittal on Load Case Avoidance. This page is being updated to be consistent with the revised MSIV isolation setpoints approved in Amendment #89.

The changes being made are as follows:

- 1) Update page 1.1-14 to reflect the changes in setpoints approved in Amendment #89.
- 2) Add Relief Valve Settings for the LLS function to Section 2.2.1 and re-index the subsequent sections as required.
- 3) Add the surveillance requirements for LLS to Table 4.2-B and appropriate reference to Section 4.6.D.
- 4) Update the Bases and References for Section 4.6 to include a discussion of the LLS function.

List of Pages Affected

1.1-4
1.2-2
3.2-26
3.2-27
3.6-6
3.6-28
3.6-29
3.6-41

EVALUATION OF CHANGE WITH RESPECT TO 10 CFR 50.92

The enclosed application is judged to involve no significant hazards based upon the following information:

- (1) Does the proposed license amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

The enclosed surveillance requirements of the Low-Low Set (LLS) function are judged not to increase the probability of occurrence of an accident or malfunction of equipment important to safety because the system is designed to be tested at power, i.e., is single failure proof, and therefore cannot cause a spurious actuation of the safety/relief valves or inadvertent trips of the Reactor Protection System. The surveillance intervals chosen are based upon the vendor recommendations and are consistent with the Standard Technical Specifications intervals for LLS, as well as for similar systems (e.g., ADS) and therefore do not lead to an increased probability of equipment malfunction. The magnitude of the consequences of an accident or malfunction of equipment important to safety is also not increased as the only possible accident, an inadvertent opening of a safety/relief valve at power, has previously been analyzed, (UFSAR Section 15.6.2 and GE report, "Duane Arnold Energy Center Suppression Pool Temperature Response," NEDC-22082-P, March, 1982*) and is considered to be a non-limiting event.

- (2) Does the proposed license amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

No, as the only possible accident or malfunction during the surveillance testing is the inadvertent opening of one safety/relief valve, which has previously been analyzed in the UFSAR.

- (3) Does the proposed amendment involve a significant reduction in a margin of safety?

No, as the inadvertent opening of a single safety/relief valve is not considered to be a limiting event and therefore does not define the margin of safety. The margin of safety for the safety/relief valve system is based upon the safety mode of the valve which is not affected by the LLS function. Thus, the proposed surveillance test requirements do not reduce the margin of safety.

In the April 6, 1983 Federal Register, the NRC published a list of examples of amendments that are not likely to involve a significant hazards concern. Example number two of that list states:

"A change that constitutes an additional limitation, restriction, or control not presently included in the technical specifications: for example, a more stringent surveillance requirement."

*Previously submitted as part of Technical Specification Amendment Request RTS-152, "Reduced Flow Rate Requirements for the Residual Heat Removal Service Water System", NG-83-1931, July 20, 1983.

EVALUATION OF CHANGE WITH RESPECT TO 10 CFR 50.92
(continued)

As there are presently no surveillance requirements for the LLS function in the Technical Specifications, the enclosed amendment request to add such surveillance is clearly within the scope of this example.

EVALUATION OF CHANGE WITH RESPECT TO 10 CFR 50.59

A Safety Evaluation per 10 CFR 50.59 requires that the following issues be addressed:

- (1) Is the probability of occurrence or the magnitude of the consequences of an accident or malfunction of equipment important to safety previously analyzed in the FSAR increased?

The enclosed surveillance requirements of the Low-Low Set (LLS) function are judged not to increase the probability of occurrence of an accident or malfunction of equipment important to safety because the system is designed to be tested at power, i.e., is single failure proof, and therefore cannot cause a spurious actuation of the safety/relief valves or inadvertent trips of the Reactor Protection System. The surveillance intervals chosen are based upon the vendor recommendations and are consistent with the Standard Technical Specifications intervals for LLS, as well as for similar systems (e.g., ADS) and therefore do not lead to an increased probability of equipment malfunction. The magnitude of the consequences of an accident or malfunction of equipment important to safety is also not increased as the only possible accident, an inadvertent opening of a safety/relief valve at power, has previously been analyzed, (UFSAR Section 15.6.2 and GE report, "Duane Arnold Energy Center Suppression Pool Temperature Response," NEDC-22082-P, March, 1982) and is considered to be a non-limiting event.

- (2) Is the possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR created?

No, as the only possible accident or malfunction during the surveillance testing is the inadvertent opening of one safety/relief valve, which has previously been analyzed in the UFSAR.

- (3) Is the margin of safety as defined in the basis of any technical specification reduced?

No, as the inadvertent opening of a single safety/relief valve is not considered to be a limiting event and therefore does not define the margin of safety. The margin of safety for the safety/relief valve system is based upon the safety mode of the valve which is not affected by the LLS function. Thus, the proposed surveillance test requirements do not reduce the margin of safety.