



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 73 TO LICENSE NO. DPR-49

IOWA ELECTRIC LIGHT AND POWER COMPANY  
CENTRAL IOWA POWER COOPERATIVE  
CORN BELT POWER COOPERATIVE

DOCKET NO. 50-331

DUANE ARNOLD ENERGY CENTER

Author: Kenneth T. Eccleston

1.0 Introduction

As a result of events involving common cause failures of Scram Discharge Volume (SDV) limit switches and SDV drain valve operability, the NRC staff issued IE Bulletin 80-14 on June 12, 1980. In addition we sent a letter dated July 7, 1980 to all operating BWR licensees requesting that they propose Technical Specification changes to provide surveillance requirements for SDV vent and drain valves and Limiting Conditions of Operation (LCO) and surveillance requirements on SDV limit switches. Model Technical Specifications were enclosed with this letter to provide guidance to licensees for preparation of the requested submittals.

2.0 Evaluation

The enclosed report (TER-C5506-70) was prepared by Franklin Research Center (FRC) as a part of a technical assistance contract program. Their report provides their technical evaluation of the compliance of the licensee's submittal with NRC provided criteria.

FRC has concluded that the Iowa Electric Light and Power Company's (licensee) October 9, 1980 response does not meet the explicit requirements of paragraph 3.3-6 and Table 3.3.6-1 of the NRC staff's Model Technical Specifications (TS). However, the FRC report concludes that technical bases are defined on p. 50 of our "Generic Safety Evaluation Report BWR Scram Discharge System", dated December 1, 1980 that permit consideration of this departure from the explicit requirements of the Model Technical Specifications. We conclude that these technical bases justify a deviation from the explicit requirements of the Model TS.

In addition, FRC has also concluded that the proposed Duane Arnold Energy Center (DAEC) TSs do not meet our Model TS requirements of paragraph 4.3.1.1 and Table 4.3.1.1-1 for SDV water level high channel functional test requirements. However, the FRC TER concludes that the proposed surveillance requirements for SDV water level high are acceptable, since

the present DAEC design incorporates two instrument volumes and the licensee is providing four reactor protection system (RPS) level instruments for each of the two instrument volumes, for a total of eight instruments for the RPS. The model TSs were developed for plants which have only one instrument volume (four level instruments); therefore, the second instrument volume significantly improves the design and reliability of the SDV. Taking this into account, we conclude that these technical bases justify a deviation from the explicit requirements of the model TSs.

FRC has concluded that the licensee's proposed TS revisions (as modified by subsequent discussions with the licensee) meet our criteria without need for further revision.

### 3.0 Summary

Based upon our review of the contractor's report of its evaluations, we conclude that the licensee's proposed TS satisfy our requirements for surveillance of SDV vent and drain valves and for LCOs and surveillance requirements for SDV level instrumentation. Consequently, we find the licensee's proposed TS acceptable.

### 4.0 Environmental Considerations

We have determined that this amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and pursuant to 10 CFR Section 51.5(d)(4) that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

### 5.0 Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: April 12, 1982