

NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL
(TEMPORARY FORM)

CONTROL NO: 3526

FILE: _____

FROM: Iowa Elec. Light & Pwr. Co. Cedar Rapids, Iowa Charles W. Sandford			DATE OF DOC 3-27-75	DATE REC'D 4-2-75	LTR XX	TWX	RPT	OTHER
TO: Mr. B. C. Rusche			ORIG 3 signed	CC 37	OTHER	SENT AEC PDR XX SENT LOCAL PDR XX		
CLASS	UNCLASS XXX	PROP INFO	INPUT XXX	NO CYS REC'D 40	DOCKET NO: 50-331			

DESCRIPTION: Ltr notarized 3-27-75 pursuant to Sect. 50.59 & 50.90 requests for Amdt to OL/DPR-50 & trans the followig:

ENCLOSURES: Proposed Change to Tech Specs App. A to Lic. DPR-50 re our 2-15-75 ltr....

(40 cys encl rec'd)

PLANT NAME: Duane Arnold Plant

Do Not Remove

FOR ACTION/INFORMATION

DHL 4-3-75

BUTLER (L) W/ Copies	SCHWENCER (L) W/ Copies	ZIEMANN (L) W/ Copies	REGAN (E) W/ Copies
CLARK (L) W/ Copies	STOLZ (L) W/ Copies	DICKER (E) W/ Copies	LEAR (L) W/ Copies
PARR (L) W/ Copies	VASSALLO (L) W/ Copies	KNIGHTON (E) W/ Copies	SPELS W/ Copies
KNIEL (L) W/ Copies	PURPLE (L) W/ Copies	YOUNGBLOOD (E) W/ Copies	

INTERNAL DISTRIBUTION

REG FILE NRC PDR OGC, ROOM P-506A GOSSICK/STAFF CASE GIAMBUSSO BOYD MOORE (L) DEYOUNG (L) SKOVHOLT (L) GOLLER (L) (Ltr) P. COLLINS DENISE REG OPR FILE & REGION (2) T.R. WILSON STEELE	TECH REVIEW SCHROEDER MACCARY KNIGHT PAWLICKI SHAO STELLO HOUSTON NOVAK ROSS IPPOLITO TEDESCO LONG LAINAS BENAROYA VOLLMER	DENTON GRIMES GAMMILL KASTNER BALLARD SPANGLER ENVIRO MULLER DICKER KNIGHTON YOUNGBLOOD REGAN PROJECT LDR BeVAN HARLESS	LIC ASST R. DIGGS (L) H. GEARIN (L) E. GOULBOURNE (L) P. KREUTZER (E) J. LEE (L) M. MAIGRET (L) S. REED (E) M. SERVICE (L) S. SHEPPARD (L) M. SLATER (E) H. SMITH (L) S. TEETS (L) G. WILLIAMS (E) V. WILSON (L) R. INGRAM (L)	A/T IND. BRAITMAN SALTZMAN MELTZ PLANS MCDONALD CHAPMAN DUBE (Ltr) E. COUPE PETERSON HARTFIELD (2) KLECKER EISENHUT WIGGINTON
---	--	---	--	--

EXTERNAL DISTRIBUTION

(2) *ML*

4 - LOCAL PDR Cedar Rapids, Iowa	1 - NATIONAL LABS	1 - PDR-SAN/LA/NY
1 - TIC (ABERNATHY) (1)(2)(10)	1 - W. PENNINGTON, Rm E-201 GT	1 - BROOKHAVEN NAT LAB
1 - NSIC (BUCHANAN)	1 - CONSULTANTS	1 - G. ULRIKSON, ORNL
1 - ASLB	NEWMARK/BLUME/AGBABIAN	1 - AGMED (RUTH GUSSMAN) Rm B-127 GT
1 - Newton Anderson	TO LIC. ASST. S. TEETS 4-3-75	1 - J. D. RUNKLES, Rm E-201 GT
14 - ACRS HOLDINGS		

IOWA ELECTRIC LIGHT AND POWER COMPANY

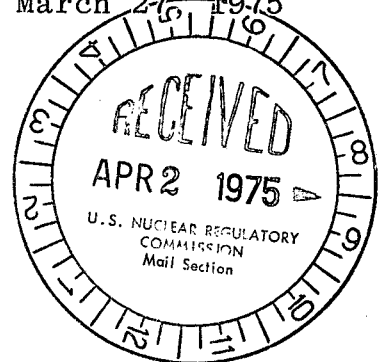
General Office

CEDAR RAPIDS, IOWA

50-331

CHARLES W. SANDFORD
EXECUTIVE VICE PRESIDENT

March 27, 1975



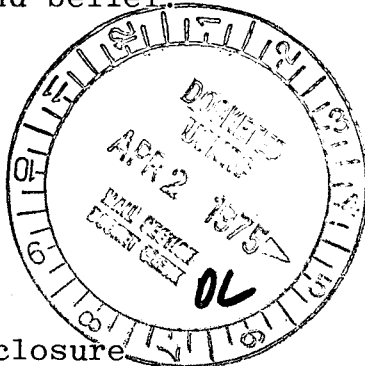
Mr. B. C. Rusche, Director
Office of Nuclear Reactor Regulation
Nuclear Regulatory Commission
Washington, D.C. 20545

Dear Mr. Rusche:

Transmitted herewith, in accordance with the requirements of 10 CFR 50.59 and 50.90, is an application for amendment of DPR-50 to incorporate the proposed change in technical specifications (Appendix A to License) for the Duane Arnold Energy Center (DAEC), described in the enclosure hereto. This change is submitted in response to a letter from the NRC (Mr. G. Lear, Chief, Operating Reactors Branch #3, Division of Reactor Licensing to Mr. D. Arnold, President, Iowa Electric Light and Power Company; Dated February 15, 1975).

The proposed change has been reviewed and approved by the DAEC Operations Committee and the DAEC Safety Committee and does not involve a significant hazards consideration.

Three signed and notarized originals and thirty-seven additional copies of this application are transmitted herewith. This application, consisting of the foregoing letter and enclosure hereto, is true and accurate to the best of my knowledge and belief.



Iowa Electric Light and Power Company

Charles W. Sandford
CHARLES W. SANDFORD
Executive Vice President

CWS:D
cc:w/enclosure
D. Arnold
W. Paulson
J. Keppler
J. Newman

Sworn and subscribed to me this
27th day of March, 1975.

Marjorie E. McDonald
Notary Public in and for the State
of Iowa.

3526
Marjorie E. McDonald
NOTARY PUBLIC
State of Iowa
Commission Expires
September 30, 1976

I. Affected Technical Specifications

3-21-75

Appendix A of the technical specifications for the DAEC (DPR-49) provide as follows:

Specification 3.7.A. Primary Containment (LCO)

- "1. Whenever primary containment is required the volume and temperature of the water in the suppression chamber shall be maintained within the following limits:
 - a. Maximum water temperature during normal operation - 95°F.
 - b. Maximum water temperature during HPCI or RCIC test operation - 120°F and shall not be above 95°F for more than 24 hours.
 - c. Minimum water volume - 58,900 cubic feet.
 - d. Maximum water volume - 61,500 cubic feet."

Specification 4.7.A. Primary Containment (Surveillance)

- "1. The suppression chamber water level and temperature shall be checked once per day. The interior surfaces above the water line of the pressure suppression chamber and the interior surfaces of the drywell shall be inspected at each refueling outage."

II. Proposed Changes in Technical Specifications

The licensees of DPR-49 propose the following changes in the technical specifications set forth in I, above:

Delete the present Specifications 3.7.A.1.a, b, c and d and insert the following:

- "1. Whenever the nuclear system is pressurized above atmospheric or work is being done which has the potential to drain the vessel, the suppression pool water volume and temperature shall be maintained within the following limits.
 - a. Maximum water volume - 61,500 cubic feet.
 - b. Minimum water volume - 58,900 cubic feet.
 - c. Maximum water temperature:
 - 1) During continuous power operation - 95°F.
 - 2) During testing which adds heat to the suppression pool - 105°F.

- 3) During reactor power operation - 110°F.
- 4) Following a scram from continuous power operation without initiating plant depressurization - 120°F.
- d. In order to continue reactor power operation after exceeding the limits of Specification 3.7.A.1.C.1, the suppression pool temperature must be reduced to 95°F within 24 hours.
- e. If Specification 3.7.A.1.c.3 is exceeded a controlled shutdown will be initiated immediately and the reactor shall be in a cold shutdown condition within 24 hours."

Delete the present Specification 4.7.A.1 and insert the following:

"1.

- a. The pressure suppression pool water level and temperature shall be checked once per day.
- b. Whenever there is indication that a significant amount of heat is being added to the pressure suppression pool, the pool temperature shall be observed and logged at least every 5 minutes until the heat addition is terminated.
- c. Whenever there is indication that there was relief valve operation with the temperature of the suppression pool exceeding 160°F the plant shall be placed in a cold shutdown condition and a visual external inspection of the suppression pool structure will be conducted prior to resuming power operation.
- d. The interior surfaces above the water line of the pressure suppression chamber and the interior surfaces of the drywell shall be inspected at each refueling outage."

Add the following to the Bases for Specification 3.7.A and Specification 4.7.A

"Experimental data indicates that excessive steam condensing loads can be avoided if the peak temperature of the pressure suppression pool is maintained below 160°F during any period of relief valve operation with sonic conditions at the discharge exit. Specifications have been placed on the envelope of reactor operating conditions so that the reactor can be depressurized in a timely manner to avoid the regime of potentially high pressure suppression chamber loadings.

Because of the large volume and thermal capacity of the pressure suppression pool, the volume and temperature normally changes very slowly and monitoring these parameters daily is sufficient to establish any temperature trends. By requiring the pressure suppression pool temperature to be continually observed and frequently logged during periods of significant heat addition, the temperature trends will be closely followed so that appropriate action can be taken. The requirement for an external visual examination following any event where potentially high loadings could occur provides assurance that no significant damage was encountered. Particular attention should be focused on structural discontinuities in the vicinity of the relief valve discharge since these are expected to be the points of highest stress."

Add the following definition to Specification 1.0:

"27. Continuous Power Operation

Continuous power operation is defined as reactor power operation for a period of greater than 24 hours. The reactor is not in continuous power operation when testing is being carried out which can significantly affect the temperature of the suppression pool."

III. Justification for Proposed Changes

This proposed technical specification change is being submitted in response to a request from the NCR (Letter; Mr. G. Lear, Chief, Operating Reactors Branch #3, Division of Reactor Licensing to Mr. D. Arnold, President, Iowa Electric Light and Power Company; Dated February 15, 1975).

This proposed change is intended to preclude the development of the steam quenching vibration phenomenon caused by extended relief valve discharge into the torus water or the flow from the drywell during a LOCA if the pool water is at elevated temperatures. The limits included in this proposed change are intended to keep these elevated temperatures from being reached. In the unlikely event that the elevated temperatures are reached the proposed change provides for surveillance requirements to be met before reactor operation can be continued. The DAEC has been operating under the above proposed limits since December 13, 1974 (Letter; Mr. C. W. Sandford, Executive Vice President, Iowa Electric Light and Power Company to Mr. J. Keppler, Director, Regulatory Operations Regional Office, Atomic Energy Commission; Dated December 4, 1974).

IV. Review Procedure

This proposed change has been reviewed by the DAEC Operations Committee and Safety Committee which have found that this proposed change does not involve a significant hazards consideration.