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FROM:		DATE OF DOC:	DATE REC'D	LTR	MEMO	RPT	OTHER
Iowa Electric Light & Power Company Cedar Rapids, Iowa 52406 C. W. Sanford		11-1-72	11-10-72	X			
TO:		ORIG	CC	OTHER	SENT AEC PDR <u>X</u> SENT LOCAL PDR <u>X</u>		
Mr. Boyd		1					
CLASS: <u>U</u> PROP INFO		INPUT	NO CYS REC'D	DOCKET NO:			
			1	50-331			

DESCRIPTION:  
Ltr re our 10-3-72 ltr.....furnishing info concerning new operating pressure & temperature limitations for the reactor coolant pressure boundary.....

ENCLOSURES:

**DO NOT REMOVE  
ACKNOWLEDGED**

PLANT NAMES: Duane Arnold Energy Center

FOR ACTION/INFORMATION 11-10-72 AB

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✓ 16-CYS ACRS HOLDING SENT TO LIC ASST		1-RD...MULLER...F-309GT
MAIGRET ON 11-10-72		

## IOWA ELECTRIC LIGHT AND POWER COMPANY

General Office

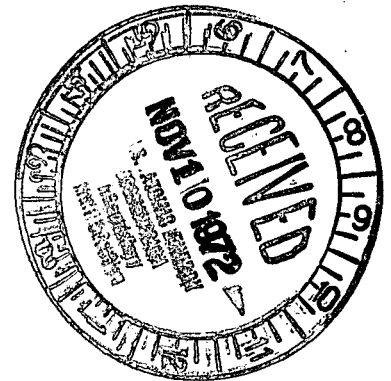
CEDAR RAPIDS, IOWA

November 1, 1972

IE-72-646

C. W. SANDFORD  
VICE PRESIDENTMr. Roger S. Boyd  
Assistant Director for  
Boiling Water Reactors  
Directorate of Licensing  
U. S. Atomic Energy Commission  
Washington, D. C. 20545

50 - 331

Re: Duane Arnold Energy Center #1  
Subject: Operating Pressure and Temperature Limitations  
Files: A-104/A-116

Dear Mr. Boyd:

This is in response to your letter dated October 3, 1972 wherein you requested new operating pressure and temperature limitations for the reactor coolant pressure boundary.

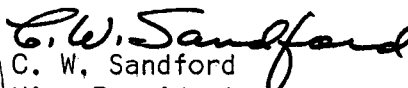
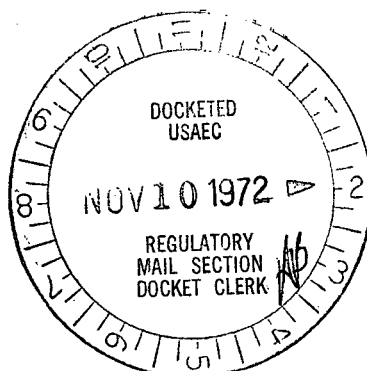
Operating limits on reactor vessel pressure and temperature during normal heatup and cooldown, and during in-service hydrostatic testing, will be established using as a guide the Summer 1972 Addenda to Section III of the ASME Boiler and Pressure Vessel Code, 1971 Edition. These new limits will be submitted by December 31, 1972.

These operating limits will assure that a large postulated surface flaw, having a depth of one-quarter of the material thickness, can be safely accommodated in regions of the vessel shell remote from discontinuities.

For the purpose of setting these operating limits the reference temperature,  $RT_{NDT}$ , of the vessel material will be determined from the impact test data taken in accordance with requirements of the Code to which this vessel is designed and manufactured.

If the dropweight NDT temperature is known, the reference temperature to be used will be the NDT temperature. If the dropweight NDT temperature is not known, the reference temperature to be used will be the temperature at which 30 ft.lb. of energy would be expected to occur on the basis of reported Charpy V notch test data. For materials in the core region of the vessel, the pressurization temperature will be increased by the shift of the reference temperature due to irradiation effects.

Very truly yours,

  
C. W. Sandford  
Vice PresidentJNW:CWS:hh  
cc: D. Arnold  
J. Newman

6183