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TO: Mr. Edson G. Case

FROM: Iowa Electric Light & Pwr. Company  
Cedar Rapids, Iowa  
Lee Liu

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PLANT NAME: **ACKNOWLEDGED** (1-P)  
Duane Arnold  
RJL

ENCLOSURE

Amdt. to OL/change to Appendix A tech specs...concerns snubber inspection intervals.....

(3-P)

**40 encl.**

SAFETY

FOR ACTION/INFORMATION

ENVIRO

ASSIGNED AD:  
BRANCH CHIEF: **(5) LEAR**  
PROJECT MANAGER: **WETMORE**  
LIC. ASST.: **PARRISH**

ASSIGNED AD:  
BRANCH CHIEF:  
PROJECT MANAGER:  
LIC. ASST.:

INTERNAL DISTRIBUTION

<input checked="" type="checkbox"/> RES FILE	SYSTEMS SAFETY
<input checked="" type="checkbox"/> NRC PDR	HEINEMAN
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<input checked="" type="checkbox"/> OELD	
<input checked="" type="checkbox"/> GOSSICK & STAFF	ENGINEERING
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<input checked="" type="checkbox"/> MELTZ	
<input checked="" type="checkbox"/> HELTEMES	AT & I
<input checked="" type="checkbox"/> SKOVHOLT	SALTZMAN
	RUTBERG

PLANT SYSTEMS	SITE SAFETY & ENVIRO ANALYSIS
TEDESCO	DENTON & MUIJER
BENAROYA	
LAINAS	ENVIRO TECH.
IPPOLITO	ERNST
KIRKWOOD	BALLARD
	SPANGLER
OPERATING REACTORS	SITE TECH.
STELLO	GAMMILL
	STEFF
	HULMAN
OPERATING TECH.	SITE ANALYSIS
EISENHUT	VOLLNER
SHAO	BUNCH
BAER	J. COLLINS
BUFLER	KREGER
GRINES	

EXTERNAL DISTRIBUTION

L.PDR: **CEDAR RAPIDS 2A**  
TIC:  
NSIC:  
ASLB:  
ACRS 16 CYS **HOWE/REG/INT**  
**AS CAT. B**

NAT LAB:  
REG. VIE  
IA PDR  
CONSULTANTS  
BROOKHAVEN NAT LAB  
ULRIKSON(ORNL.)

CONTROL NUMBER  
**771520012**  
**Ap 2**  
**60**

# IOWA ELECTRIC LIGHT AND POWER COMPANY

General Office  
CEDAR RAPIDS, IOWA

LEE LIU  
VICE PRESIDENT - ENGINEERING

IE-77-1063

May 27, 1977

REGULATORY DOCKET FILE COPY

Mr. Edson G. Case  
Acting Director  
Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20545



Dear Mr. Case:

Transmitted herewith in accordance with the requirements of 10CFR50.59 and 50.90 is an application for a temporary amendment for DPR-49 (Appendix A to license) for the Duane Arnold Energy Center.

This application consisting of proposed Technical Specification Change RTS-87 has been reviewed and approved by the DAEC Operations Committee and the DAEC Safety Committee. This application does not involve a significant hazards consideration. As we are presently required to shut down by June 20, 1977 to inspect hydraulic snubbers, approval is requested prior to that date.

Three signed and notarized originals and 37 additional copies of this application are transmitted herewith. This application, consisting of the foregoing letter and enclosures hereto, is true and accurate to the best of my knowledge and belief.

Iowa Electric Light and Power Company

By Larry D. Root  
Lee Liu *for*  
Vice President-Engineering

LL/OCS/D  
Enc.

cc: K. Meyer  
D. Arnold  
R. Lowenstein  
J. Keppler  
L. Root  
File A-117

Subscribed and sworn to before me  
on this 27<sup>th</sup> day of May, 1977.

Jean R. Smith  
Notary public in and for the state of  
Iowa.

Jean R. Smith  
NOTARY PUBLIC  
STATE OF IOWA  
Commission Expires  
September 30, 1978

771520012

## PROPOSED CHANGE RTS-87 TO DAEC TECHNICAL SPECIFICATIONS

### I. Affected Technical Specifications

Appendix A of the Technical Specifications for the DAEC (DPR-49) provides as follows:

Specification 4.6.H.1 states, in part, that if more than eight snubbers were found inoperable during the previous inspection, the next required inspection interval is to be "31 days  $\pm$  25%".

### II. Proposed Changes in Technical Specifications

The licensees of DPR-49 propose the following changes in the Technical Specifications set forth in I above:

Add a note stating "Temporarily increase the first inspection from 31 days  $\pm$  25% to  $\leq$ 120 days. This temporary change will expire and the snubber inspection will be completed on or before September 10, 1977".

### III. Justification for Proposed Change

The purpose of this change is to allow continued operation of the DAEC plant during the summer peak. Upon completion of the 120-day run, Iowa Electric would shutdown, remove and replace the hydraulic snubbers with mechanical snubbers. All of the presently installed hydraulic snubbers classified as "accessible and inaccessible", which are listed in the Technical Specifications, were functionally tested during the spring 1977 refueling outage for lockup velocity and bleed rate using our commercial testing machine. This machine operates in two modes: low and high system pressure. The testing subjected the snubber seal material to forces which verify their integrity which, in turn, supports operation during the extended 90-day period above the present Technical Specifications. During the 1976 refueling outage, all hydraulic snubbers were inspected. At that time there was no degradation noted. In the ensuing year a total of 7% of all snubbers were determined to be inoperable due to a loss of hydraulic fluid. All of those units have been repaired. The run of approximately two years with no failures and then a 7% failure rate during the following year, with no maintenance having been conducted during the previous outage, demonstrates that the failures during the 120-day operating period to be extremely low-probability events.

It is expected that approximately 10 days will be required to replace the hydraulic snubbers or six days to inspect the snubbers. Each day's outage would cost the consumer about \$150,000. The benefits of operating far outweigh the low probability of snubber failure. It is also expected that the non-operation of the DAEC could affect power pools quite distant from the DAEC.

#### IV. Review Procedures

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.

2. From and after the time that a snubber is determined to be inoperable, continued reactor operation is permissible only during the succeeding 72 hours unless the snubber is sooner made operable or replaced.
3. If the requirements of 3.6.H.1 and 3.6.H.2 cannot be met, an orderly shutdown shall be initiated and the reactor shall be in a cold shutdown condition within 36 hours.
4. If a snubber is determined to be inoperable while the reactor is in the shutdown or refuel mode, the snubber shall be made operable or replaced prior to reactor startup.
5. Snubbers may be added to safety related systems without prior License Amendment to Tables 4.6-3 or 4.6-4 provided that a revision to Table 4.6-3 or 4.6-4 is included with the next License Amendment request.

\* Temporarily increase the first inspection from 31 days  $\pm$  25% to  $\leq$  120 days. This temporary change will expire and the snubber inspection will be completed on or before September 10, 1977.

analysis to be compatible with the operating environment shall be visually inspected. This inspection shall include, but not necessarily be limited to, inspection of the hydraulic fluid reservoir, fluid connections and linkage connections to the piping and anchor to verify snubber operability in accordance with the following schedule:

Number of Snubbers Found Inoperable	Next Required Inspection Interval
0	18 months $\pm$ 25%
1	12 months $\pm$ 25%
2	6 months $\pm$ 25%
3, 4	124 days $\pm$ 25%
5, 6, 7	62 days $\pm$ 25%
* $\geq$ 8	31 days $\pm$ 25%

The required inspection interval shall not be lengthened more than one step at a time.

Snubbers are categorized in two groups, "accessible and inaccessible" based on their accessibility for inspection during reactor operation. These two groups will be inspected independently according to the above schedule.

2. All hydraulic snubbers whose seal materials are other than ethylene propylene or other material that has been demonstrated to be compatible with the operating environment shall be visually inspected for operability every 31 days.