

# NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL

THIS FORM TO BE USED FOR DISTRIBUTION (TEMPORARY FORM)

OF MATERIAL IN RESPONSE TO OUR 4-26-75

LTR CONCERNING TRAVERSING INCORE PROBES

(TIP)...PER INSTRUCTIONS OBTAINED BY LA R. DIGGS.

CONTROL NO: **5487**

FILE: \_\_\_\_\_

FROM: <b>Iowa Electric Light&amp;Pwr Cedar Rapids, Ia K M Hass</b>			DATE OF DOC <b>5-6-75</b>	DATE REC'D <b>5-19-75</b>	LTR <b>XXX</b>	TWX	RPT	OTHER
TO: <b>Mr Giambusso</b>			ORIG <b>none signed</b>	CC	OTHER	SENT AEC PDR <b>EX</b> SENT LOCAL PDR <b>XX</b>		
CLASS	UNCLASS <b>XXXXXXXX</b>	PROP INFO	INPUT	NO CYS REC'D <b>1</b>		DOCKET NO: <b>50-331</b>		

**DESCRIPTION:**

Ltr re our 4-26-75 ltr.....  
trans the following:

**ACKNOWLEDGED**

PLANT NAME: **Duané Arnold**

**ENCLOSURES:**

Complete TIP Trace sets for the last 3  
months & one for October 8, 1974.....  
*Refer to Folder*  
(40 cys encl rec'd)

**DO NOT REMOVE**

FOR ACTION/INFORMATION

**5-20-75 ehf**

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EXTERNAL DISTRIBUTION

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# REGULATORY DOCKET FILE COPY

## IOWA ELECTRIC LIGHT AND POWER COMPANY

General Office

CEDAR RAPIDS, IOWA

DUANE ARNOLD ENERGY CENTER

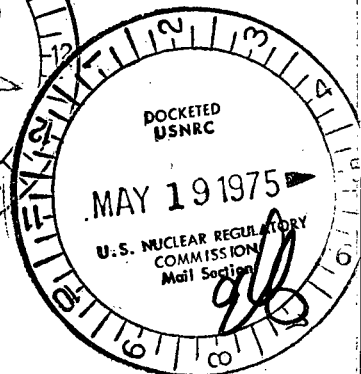
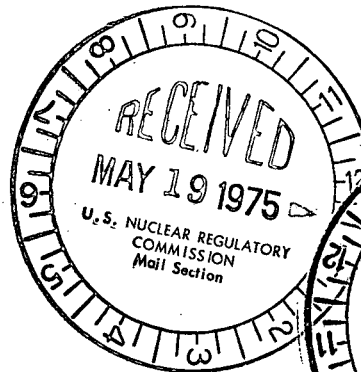
PALO, IOWA

MAY 6, 1975

DAEC-75-188

50 - 331

Mr. Angelo Giambusso, Director  
Division of Reactor Licensing  
U. S. Nuclear Regulatory Commission  
1717 H Street N. W.  
Washington, D. C. 20545



Dear Mr. Giambusso:

In response to Mr. B. C. Rusche's 4/26/75 letter to Mr. Duane Arnold, complete TIP Trace sets for the last three (3) months and a TIP set from October 8, 1974 have been closely examined for abnormalities. These traces are summarized below and attached to this report.

<u>Date of Trace Set</u>	<u>Core Power (MWt)</u>	<u>Core Flow (Mlb/hr)</u>
10/8/74	1584	48.75
2/4/75	1178	32.36
4/3/75, 1000 Hours	1584	48.41
4/3/75, 1600 Hours	1588	49.01
4/7/75	1407	41.53

DAEC uses 3 TIP machines to monitor 20 core locations. Traces from all 3 machines of core location 24-25 were compared to determine if any TIP channel exhibited more noise than another. On all TIP trace sets the three TIP channels showed similar response in the common core location. Thus, no differences in traces can be readily attributed to a difference in the response of the various TIP machine electronics.

All diagonally symmetric TIP locations for each set of traces were compared to spot possible asymmetric axial power distributions. Figure 1 indicates lines of symmetry. No asymmetric conditions could be found which would indicate any abnormal incore condition.

Except for the TIP trace set of 2/4/75 taken at low core flow, the traces of the last 3 months reveal three locations that have a higher than average level of noise. Locations 16-09, 32-17, and 24-17 were the most noisy locations.

5487

5/6/75

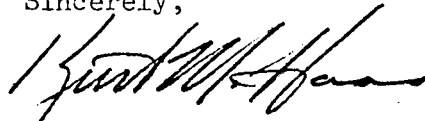
Of these three, 16-09 is the only location where noise is not clearly less than the reporting criteria established by the 4/26/75 letter from USNRC to Iowa Electric. Its symmetric location, 08-17, did not exhibit the same noise response. The TIP trace set of 2/4/75 taken at a core flow of 32.36 Mlb/hr indicates a very low level of noise.

A study of location 16-09 using the 4/3/75, 1000 hours TIP trace shows that some 10 inch sections of the traverse do contain signal noise in excess of 6% (noise band width to signal amplitude) at an approximate frequency of 2.5 Hz. An analysis of this location by General Electric has determined, however, that there is no evidence of any channel degradation (See attached letter from W. G. Crockett to D. Moen). General Electric reports that the observed 2.5 Hz noise is characteristically present in BWR instrument strings.

To gain further insight into the vibration problem a high speed recorder was connected to the output of LPRM 16-09 B. The reactor was then operated at various core flows from 19.4 Mlb/hr to 41.5 Mlb/hr in an attempt to determine core flows which gave abnormally high noise signals. There appeared to be no specific flow at which the noise level changes significantly. Instead the noise level gradually increased.


A more quantitative frequency study is due to begin shortly. Besides providing a more descriptive and accurate analysis this exercise will also gather baseline information for any future check on the incores. The results of this analysis will be made available as soon as they are completed.

Sincerely,

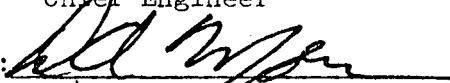


Kurt M. Haas  
Reactor Engineer  
Duane Arnold Energy Center

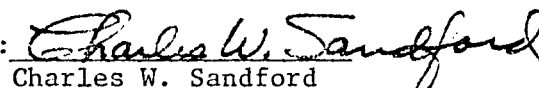
APPROVED BY:

  
Chief Engineer

APPROVED BY:

  
Reactor & Plant Performance  
Engineer

APPROVED BY:

  
Charles W. Sandford  
Executive Vice President

attachment

KMR/mg

cc: D. A. Arnold	J. A. Wallace
C. W. Sandford	L. Liu
G. G. Hunt	L. Root
E. L. Hammond	G. A. Cook
D. A. Moen	J. R. Newman
J. R. Bull	
File, J-40b	