

JUN 4 1975

Docket No. 50-331

LICENSEE: IOWA ELECTRIC LIGHT AND POWER COMPANY

FACILITY: DUANE ARNOLD ENERGY CENTER

SUMMARY OF MEETING HELD ON MAY 21, 1975 TO DISCUSS CHANNEL BOX WEAR CONCERNS

On May 21, 1975, a meeting was held in Bethesda with representatives of Iowa Electric Light and Power Company (IELP) and General Electric Company (GE) to discuss concerns relative to possible channel box wear at the Duane Arnold Energy Center. A list of attendees is enclosed.

Background

Pursuant to the instructions in paragraph 4 of our letter of April 26, 1975, concerning possible channel box wear, IELP reported by telephone on May 6, 1975, that the Traversing Incore Probe (TIP) trace for position 16-09 had displayed a ratio of noise level width to signal amplitude exceeding 0.06 for signals greater than one Hz on a trace taken on April 3, 1975. During the power ascension following a shutdown on May 5, 1975, IELP performed tests to monitor the TIP noise and conducted special tests to determine the signal characteristics of the Low Power Range Monitors (LPRM's). On May 17, 1975, IELP notified the NRC staff by telephone that the reactor had reached 100% flow and 96% power and that a TIP trace at location 16-09 taken on May 16-17, 1975 had displayed a ratio of noise band width to signal amplitude of 0.0625. Subsequently, IELP agreed that they will not operate the facility at core power levels exceeding 50% of rated power or core flow rates exceeding 50% of design flow rate without prior written approval of the NRC staff.

Summary

W. Morgan, GE, summarized the information that they had received to date concerning the anomalous signals of the incore neutron detector instruments at the foreign BWR reactor that had significant wear and some cracking of several zircaloy fuel channel boxes. The foreign reactor showed 11 to 12% peak-to-peak noise in February 1975.

W. Morgan also discussed the interpretation of the power spectral density data taken at the Duane Arnold Energy Center at location 16-09. GE concluded based on their interpretation that the instrument tube was

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vibrating into the channel box but that no appreciable damage had occurred as yet.

We stated that the onset of damage has not been identified in terms of the power spectral density plots; hence, it is premature to conclude that there is no appreciable damage at location 16-09. We also stated that whereas GE interprets an increase in TIP noise with exposure as normal and expected, it also can be interpreted that there is a hole in the channel box and that the noise gets worse because the hole gets bigger.

We stated that there is a question as to how long the BWR-4 plants (with bypass holes in the lower core plate) could operate at partial load in view of the possible channel box damage. We stated that the problem has to be addressed and that the utilities should get together and propose a course of action. IELP stated that they will propose a plan to address this problem in the near future.

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Walter A. Paulson
Operating Reactors Branch #3
Division of Reactor Licensing

Enclosure:
Attendance List

DISTRIBUTION:
Docket
NRC PDR
Local PDR
ORB-3 Reading
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OFFICE ➤	RL:ORB-3	TR:CPB	RL:ORB-3			
x7872	WP					
SURNAME ➤	WPaulson:esp	DRoss	GLear			
DATE ➤	6/3/75	7/75	6/4/75			

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ENCLOSURE

ATTENDANCE LIST

IOWA ELECTRIC LIGHT AND POWER COMPANY

J. Ward
J. R. Bull
D. A. Moen

GENERAL ELECTRIC COMPANY

I. Stuart
A. P. Bray
W. Monean
D. A. Parry
N. C. Shirley
L. J. Gifford
R. M. Ketchel

LOWENSTEIN, NEWMAN, REIS & AXELRAD

B. Lowenstein
K. H. Shea

PICKARD LOWE & ASSOCIATES

T. R. Robbins

NRC

W. Paulson
L. S. Rubenstein
B. Rusche
E. Case
F. Schroeder
V. Stello
E. Ketchen
C. W. Sandford
K. R. Goller
J. Gallo
D. Fieno
C. Feierabend
H. Richings
P. O'Connor

F. D. Coffman

OFFICE	SURNAME	DATE
S. Isral		
S. Kim		

Attendance List

- 2 -

NRC

J. Sapir
D. Eisenhut
D. L. Ziemann
G. Lear
D. Kirkpatrick
D. N. Fry (NRC consultant)

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SURNAME ➤						
DATE ➤						