

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)
DISTRIBUTION FOR INCOMING MATERIAL 50-331

REC: KEPPLER J G
NRC

ORG: HAMMOND E L
IA ELEC LIGHT & PWR

DOC DATE: 01/23/78
DATE RCVD: 01/31/78

DOCTYPE: LETTER NOTARIZED: NO
SUBJECT:

COPIES RECEIVED
LTR 0 ENCL 1

UPDATE LICENSEE EVENT REPT (RO 50-331/77-70) ON 09/04/77 CONCERNING FIVE
HYDRAULIC SHOCK SUPPRESSORS (SNUBBERS) WERE FOUND TO BE INOPERABLE DUE TO LOW
OIL LEVELS IN THEIR ACCUMULATORS.

PLANT NAME: DUANE ARNOLD

REVIEWER INITIAL: XJM
DISTRIBUTOR INITIAL:

***** DISTRIBUTION OF THIS MATERIAL IS AS FOLLOWS *****

INCIDENT REPORTS
(DISTRIBUTION CODE A002)

FOR ACTION: BRANCH CHIEF LEAR**W/4 ENCL

INTERNAL:

REG FILE**W/ENCL
I & E**W/2 ENCL
SCHROEDER/IPPOLITO**W/ENCL
NOVAK/CHECK**W/ENCL
KNIGHT**W/ENCL
HANAUER**W/ENCL
EISENHUT**W/ENCL
SHAO**W/ENCL
KREGER/J. COLLINS**W/ENCL
L. CROCKER**W/ENCL

NRC PDR**W/ENCL
MIPC**W/3 ENCL
HOUSTON**W/ENCL
GRIMES**W/ENCL
BUTLER**W/ENCL
TEDESCO**W/ENCL
BAER**W/ENCL
VOLLMER/BUNCH**W/ENCL
ROSA**W/ENCL

EXTERNAL:

LPDR/S
CEDAR RAPIDS, IA**W/ENCL
TIC**W/ENCL
NSIC**W/ENCL
ACRS CAT B**W/16 ENCL

DISTRIBUTION: LTR 45 ENCL 45
SIZE: 1P+1P+1P

CONTROL NBR: 780310098

***** THE END *****

GD
A04

REGULATORY DOCKET FILE COPY

IOWA ELECTRIC LIGHT AND POWER COMPANY

DUANE ARNOLD ENERGY CENTER
P. O. Box 351
Cedar Rapids, Iowa 52406
January 23, 1978
DAEC -78 - 41



Mr. James G. Keppler, Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission-Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Subject: Licensee Event Report No. 77-70 UPDATE REPORT
(14 day)

File: A-118a

Dear Mr. Keppler:

In accordance with Appendix A to Operating License DPR-49, Technical Specifications and Bases for Duane Arnold Energy Center and Regulatory Guide 10.1, please find attached a copy of the subject Licensee Event Report. (Total of 3 copies transmitted)

Very truly yours,

Ellery L. Hammond

Ellery L. Hammond
Chief Engineer
Duane Arnold Energy Center

Docket 50-331

attachment

ELH/DLW/mg

cc: Director, Office of Inspection and Enforcement (40)
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Director, Management Information and Program Control (3)
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

780310098

*A002/S
0/11*

LICENSEE EVENT REPORT

UPDATE REPORT

CONTROL BLOCK: (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 | I | A | D | A | C | 1 | 2 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 3 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 5

CON'T 0 1 | REPORT SOURCE | L | 6 | 0 | 5 | 0 | 0 | 0 | 3 | 3 | 1 | 7 | 0 | 1 | 9 | 1 | 0 | 4 | 7 | 7 | 8 | 0 | 1 | 1 | 1 | 9 | 7 | 8 | 9

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES

0 2 | During a special visual inspection, five hydraulic shock suppressors
0 3 | (snubbers) listed in Table 4.6.4 of the Technical Specifications were
0 4 | found to be inoperable due to low oil levels in their accumulators. No
0 5 | other abnormalities were noted during the visual inspection. Repetitive
0 6 | occurrence (see RO 77-24).

0 9 | SYSTEM CODE | X | X | 11 | CAUSE CODE | E | 12 | CAUSE SUBCODE | B | 13 | COMPONENT CODE | S | U | P | P | O | R | T | 14 | COMP. SUBCODE | D | 15 | VALVE SUBCODE | Z | 16

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS

1 0 | All five snubbers were disassembled and inspected. Inspection revealed
1 1 | several deficiencies including improperly seated O ring, cut main piston
1 2 | seat, broken accumulator spring, stuck main piston and misplaced weep hol
1 3 | e. Snubbers were Bergen Patterson Series HSSA. Replaced with Pacific Sci
1 4 | entific mechanical type snubbers.

1 5 | FACILITY STATUS | G | 28 | % POWER | 0 | 0 | 0 | 29 | OTHER STATUS | NA | 30 | METHOD OF DISCOVERY | C | 31 | DISCOVERY DESCRIPTION | Special Inspection | 32

1 6 | ACTIVITY CONTENT | Z | 33 | Z | 34 | AMOUNT OF ACTIVITY | NA | 35 | LOCATION OF RELEASE | NA | 36

1 7 | PERSONNEL EXPOSURES | Z | Z | Z | 37 | TYPE | 38 | DESCRIPTION | NA | 39

1 8 | PERSONNEL INJURIES | Z | Z | Z | 40 | DESCRIPTION | NA | 41

1 9 | LOSS OF OR DAMAGE TO FACILITY | Z | 42 | TYPE | NA | 43 | DESCRIPTION

2 0 | PUBLICITY ISSUED | Z | 44 | DESCRIPTION | NA | 45

DUANE ARNOLD ENERGY CENTER

Iowa Electric Light and Power Company

LICENSEE EVENT REPORT-Supplemental Data
Docket No. 050-0331

Licensee Event Report Date: 011978

Reportable Occurrence No: 77-70

Event Description

During a special visual inspection, the following hydraulic shock suppressors (snubbers) were found to be inoperable due to low accumulator oil levels:

<u>Identification No.</u>	<u>System</u>
SSB-1	Recirculation
DBA-4-SS-34	RCIC Steam Supply
DLA-2-SS-7	RHR
DBA-6-SS-29	Control Rod Drive
DBA-6-SS-30	Control Rod Drive

The above snubbers are listed in Table 4.6-4 of the Technical Specifications.

Event Cause

Originally, the cause of the oil leakage from the snubbers was thought to be a continuation of the generic problem involving leaking piston seals. However, additional deficiencies were noted when the snubbers were disassembled and inspected at the request of an NRC Inspector. The various deficiencies discovered during the inspection are summarized below:

1. "O" ring seal not properly seated.
2. Cut in main piston seal.
3. Broken accumulator spring and water in accumulator.
4. Accumulator piston stuck in a position allowing drainage of oil from weep hole.
5. Weep hole physically misplaced.

Corrective Action

All of the above hydraulic snubbers were replaced with mechanical type Pacific Scientific snubbers.