

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Duane Arnold Energy Center										DOCKET NUMBER (2) 0 5 0 0 0 3 3 1 1				PAGE (3) 1 OF 0 3									
TITLE (4) Alignment of Fire Suppression System to Backup Water Supply																							
EVENT DATE (5)			LER NUMBER (6)				REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)													
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES None				DOCKET NUMBER(S) 0 5 0 0 0										
1	0	0	7	8	5	8	5	0	4	1	0	0	1	1	0	6	8	5	0	5	0	0	0
OPERATING MODE (9) N		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 8: (Check one or more of the following) (11)																					
POWER LEVEL (10) 1 0 0		20.402(a)				20.405(c)				50.73(a)(2)(iv)				73.71(b)									
		20.405(a)(1)(i)				50.36(c)(1)				50.73(a)(2)(v)				73.71(c)									
		20.405(a)(1)(ii)				50.36(c)(2)				50.73(a)(2)(vi)				<input checked="" type="checkbox"/> OTHER (Specify in Abstract below and in Text, NRC Form 366A)									
		20.405(a)(1)(iii)				50.73(a)(2)(i)				50.73(a)(2)(vii)(A)				Special Report									
		20.405(a)(1)(iv)				50.73(a)(2)(ii)				50.73(a)(2)(vii)(B)													
		20.405(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(x)													
LICENSEE CONTACT FOR THIS LER (12)																							
NAME Kenneth S. Putnam, Technical Support Engineer										TELEPHONE NUMBER 3 1 9 8 5 1 - 7 4 5 6													
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																							
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS													
X	K P	I S V	S 4 1 3	No																			
SUPPLEMENTAL REPORT EXPECTED (14)												EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR							
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)												<input checked="" type="checkbox"/> NO											

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On October 7, 1985 with the reactor at approximately 100% power, the Duane Arnold Energy Center voluntarily realigned the Fire Suppression System from its normal water supply to a backup water supply (the well water system). The use of backup supply flow paths permitted maintenance on isolation valves that could not be performed with the system pressurized from the normal supply. The work was completed within nine hours and the fire suppression system returned to normal status.

On October 28, 1985 additional maintenance activities on the fire suppression system again required the realignment of the system to the backup water supply. These events are reported under the requirements of Duane Arnold Energy Center Technical Specification Section 3.13.B.3.b as a Special Report pursuant to the requirements of Section 6.11.3.f of the Technical Specifications.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Duane Arnold Energy Center	0500033185	04	1	00	02	OF	03

TEXT (If more space is required, use additional NRC Form 365A's) (17)

On October 7, 1985 at 0747 hours with the plant operating near 100% power, the fire suppression system piping was aligned to the well water system as part of a preplanned evolution that required isolation of the main fire suppression header from the normal fire suppression water supply. At 0807 hours, the isolation of the normal water supply was completed and maintenance activities on leaking isolation valves (KP-V-33-45 and KP-V-33-46, Stockham 12 inch post indicator gate valves) tying the cooling tower fire suppression loop to the normal water supply commenced. The cooling tower fire suppression loop is tied to piping between the fire pumps and the main fire header. Blank flanges were available that would permit restoring the normal water supply within one hour in the unlikely event of an actual fire suppression demand concurrent with a loss of adequate backup water supply. Additional precautionary measures were taken, including the posting of roving fire watches and the prohibition of all cutting, welding, grinding, or other work that had the potential of being an ignition source. The evolution was completed at 1640 hours when the normal water supply was realigned to the system and tested satisfactorily.

Completion of repairs to the isolation valves (KP-V-33-45 and KP-V-33-46) permitted work on valves downstream of them in the cooling tower fire suppression loop without disconnecting the main fire header from the normal fire pumps.

During the repair work on these downstream valves, workers identified inconsistencies in the installation of a bushing on the valve stems. After consulting the manufacturer it was decided to reinspect valves KP-V-33-45 and KP-V-33-46. Although the valves were performing acceptably, proper bushing installation would enhance long-term operability. The work that had been completed between October 7th and October 28th was thought to have prepared the system to permit valve lineups which would permit the sequential disassembly of KP-V-33-45 and KP-V-33-46 without isolating the main header from the fire pumps.

On October 28, 1985 the valve lineup was altered to permit disassembly of KP-V-33-45. The bushing was repositioned in the proper configuration without difficulty. The valve lineups were then rearranged to permit work on KP-V-33-46. As disassembly work progressed, excessive leakage developed around KP-V-33-46. (NOTE: Some leakage was expected as no alternate drain path for the piping existed.) Following valve lineup reverification it was concluded that one of the valves used to isolate KP-V-33-46 was leaking by. An alternative valve lineup (the same as that used on October 7th) was established with a cross-tie to the well water system at 1330 hours and the normal fire pumps were removed from service. Repair work was then completed on the valve, KP-V-33-46, and the main fire header was aligned to the fire pumps at 1521 hours. A Maintenance Action Request was initiated for the repair of the newly identified leaking isolation valve.

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TEXT (If more space is required, use additional NRC Form 366A 2) (17)

Throughout the events the fire suppression system was acceptably pressurized and adequate fire suppression capability existed to protect all safety-related systems.

This report is submitted as a Special Report pursuant to the requirements of Duane Arnold Energy Center Technical Specifications, Sections 3.13.8.3.b and 6.11.3.f.

Iowa Electric Light and Power Company

November 6, 1985  
DAEC-85-0879

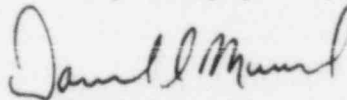
U. S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D. C. 20555

Subject: Duane Arnold Energy Center  
Docket No. 50-331  
Op. License DPR-49  
Special Report No. 85-041

Gentlemen:

In accordance with 10 CFR 50.73 please find attached a copy of the subject Special Report.

Very truly yours,



Daniel L. Mineck  
Plant Superintendent - Nuclear  
Duane Arnold Energy Center

DLM/KSP/kp

Attachment - Special Report 85-41

cc: Mr. James G. Keppler  
Regional Administrator  
Region III  
U. S. Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, IL 60137

NRC Resident Inspector - DAEC

File A-118a

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