

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8012020613 DOC. DATE: 80/11/24 NOTARIZED: NO DOCKET #  
 FACIL: 50-331 Duane Arnold Energy Center, Iowa Electric Light & Pow 05000331  
 AUTH. NAME: AUTHOR AFFILIATION  
 TOOKER, D. W. Iowa Electric Light & Power Co.  
 RECIP. NAME: RECIPIENT AFFILIATION  
 Region 3, Chicago, Office of the Director

SUBJECT: LER 80-054/OLIT-0: on 801110, during startup, relief valve PSU-4405 began leaking. Cause unknown. Spare relief valve was setpoint tested, re-worked & installed.

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 TITLE: Incident Reports

NOTES:

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	A/D MATL & QU08	1	1	A/D OP REACT009	1	1
	A/D PLANT SYS10	1	1	A/D RAD PROT 11	1	1
	A/D SFTY ASSE12	1	1	A/D TECHNOLOG13	1	1
	ACC EVALI BR 14	1	1	AEOD	2	2
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	DIR, SYS INTEG22	1	1	EFF TR SYS BR23	1	1
	EQUIP QUALI BR25	1	1	GEOSCIENCES 26	1	1
	I&C SYS BR 29	1	1	I&E 05	2	2
	JORDAN, E./IE	1	1	LIC GUID BR 30	1	1
	LIC QUALI BR 31	1	1	MATL ENG BR 32	1	1
	MECH ENG BR 33	1	1	MPA	3	3
	NRC PDR 02	1	1	OP EX EVALI BR34	3	3
	OR ASSESS BR 35	1	1	POWER SYS BR 36	1	1
	RAD ASSESS BR39	1	1	REACT SYS BR 40	1	1
	<u>REG FILE</u> 01	1	1	RELI & RISK A 41	1	1
	SFTY PROG EVA42	1	1	STRUCT ENG BR44	1	1
	SYS INTERACI B45	1	1			
EXTERNAL:	ACRS 46	16	16	LPDR 03	1	1
	NSIC 05	1	1	TERA: DOUG MAY	1	1

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L.J.

LICENSEE EVENT REPORT

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

01 IA DA C 1 2 00 - 0000000 - 00 3 4 1 1 1 1 1 1 1 1 4 5  
7 8 9 14 15 29 28 30 57 CAT 58

01 REPORT SOURCE L 6 0 15 0 10 0 3 3 1 7 1 1 1 1 0 8 0 3 1 1 2 4 8 0 9  
7 8 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)  
02 During plant startup Nov. 10, relief valve PSV-4405 began leaking. In an  
03 effort to better seat the valve, PSV-4405 was cycled open. The valve stu  
04 ck open causing reactor pressure to decrease and the reactor to scram au  
05 tomatically. The relief valve remained open for approximately 7.5 minute  
06 s. The reactor was placed in cold shutdown pending repair and retesting  
07 of the relief valve. The relief valve is a Target Rock Model 67F-6X10.  
08 No similar event reports have been submitted.

09 SYSTEM CODE S F 11 CAUSE CODE E 12 CAUSE SUBCODE B 13 COMPONENT CODE VALV EX 14 COMP SUBCODE P 15 VALVE SUBCODE B 16  
7 8 9 10 11 12 13 14 15 16 17 18 19 20  
17 LER/RO REPORT NUMBER 8 0 21 EVENT YEAR 8 0 22 SEQUENTIAL REPORT NO. 0 5 4 24 OCCURRENCE CODE 0 1 27 REPORT TYPE T 30 REVISION NO. 0 32  
ACTION TAKEN A 18 X 19 FUTURE ACTION EFFECT ON PLANT A 20 SHUTDOWN METHOD C 21 HOURS 0 0 9 6 37 ATTACHMENT SUBMITTED Y 23 NPRO-4 FORM SUB. N 24 PRIME COMP. SUPPLIER L 25 COMPONENT MANUFACTURER T 0 2 1 0 25

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)  
10 Cause unknown. A spare relief valve pilot was sent to Wyle Laboratories  
11 for setpoint testing and re-work. This valve was satisfactorily tested  
12 and reinstalled at DAEC. The plant was re-started on 11-15-80 and the  
13 valve is performing sat. The failed pilot is still being tested and an  
14 analysis of the valve failure mechanism is continuing at Wyle lab.

15 FACILITY STATUS C 28 % POWER 0 0 7 29 OTHER STATUS NA 30 METHOD OF DISCOVERY A 31 DISCOVERY DESCRIPTION Operator Observation 32  
7 8 9 10 11 12 13 14 15 16 17 18 19 20  
16 ACTIVITY CONTENT Z 33 Z 34 AMOUNT OF ACTIVITY NA 35 LOCATION OF RELEASE NA 36  
7 8 9 10 11 12 13 14 15 16 17 18 19 20  
17 PERSONNEL EXPOSURES NUMBER 0 0 0 37 TYPE Z 38 DESCRIPTION NA 39  
7 8 9 10 11 12 13 14 15 16 17 18 19 20  
18 PERSONNEL INJURIES NUMBER 0 0 0 40 DESCRIPTION NA 41  
7 8 9 10 11 12 13 14 15 16 17 18 19 20  
19 LOSS OF OR DAMAGE TO FACILITY TYPE Z 42 DESCRIPTION NA 43  
7 8 9 10 11 12 13 14 15 16 17 18 19 20  
20 PUBLICITY ISSUED N 44 DESCRIPTION NA 45  
7 8 9 10 11 12 13 14 15 16 17 18 19 20

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8012020613

DUANE ARNOLD ENERGY CENTER  
Iowa Electric Light and Power Company  
Licensee Event Report - Supplemental Data

Docket No. 050-0331

Licensee Event Report Date: November 24, 1980

Reportable Occurrence No: 80-054

Event Description:

At 1613 hours during a normal reactor startup on November 10, 1980 with reactor power at 7%, a higher than normal temperature indication was noted in the discharge line from main steam pressure relief valve PSV-4405. In an attempt to reseal the valve and stop the valve from leaking, operations personnel manually cycled the valve at rated pressure. The relief valve stuck in the open position and remained open for approximately 7.5 minutes. Reactor pressure dropped rapidly causing the reactor to automatically scram due to MSIV closure from low main steam line pressure (less than 880 psig while the reactor mode switch was in the RUN position). Reactor water level reached a low of 7.5 inches below instrument zero. The reactor water level was restored without need for ECCS initiation and the reactor was subsequently placed in cold shutdown.

Relief valve PSV-4405 is a Target Rock Model 67F-6X10 valve. No similar event reports have been submitted.

Cause Description:

The cause of the valve failure is unknown. The valve pilot assembly has been removed and replaced with a spare pilot assembly. The failed pilot assembly has been shipped to Wyle Laboratories in Huntsville, Alabama to be reworked, retested, and analyzed to determine the failure mechanism.

Corrective Action:

A spare pressure relief valve pilot assembly, identical to the failed Target Rock relief valve pilot assembly was sent to Wyle Laboratories. This second pilot assembly was reworked, setpoint tested, and returned to DAEC for use on PSV-4405. The failed valve pilot assembly was removed from PSV-4405 and has been sent to Wyle Laboratories for analysis.

At 1000 hours on November 15, 1980, the plant was restarted and PSV-4405 is presently performing satisfactorily.