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IES UTILITIES

January 16, 1997
NG-97-0107

Mr. A. Bill Beach
Regional Administrator
Region III
U. S. Nuclear Regulatory Commission
801 Warrenville Road
Lisle, IL 60532

Subject: Duane Arnold Energy Center
Docket No: 50-331
Op. License No: DPR-49
Licensee Event Report #96-07
File: A-118a

Gentlemen:

Please find attached a copy of the subject Licensee Event Report in accordance with 10CFR50.73. There are no new commitments made in this letter.

Sincerely,

Gary Van Middlesworth

Gary Van Middlesworth
Plant Manager - Nuclear

cc: Director of Nuclear Reactor Regulation
Document Control Desk
U. S. Nuclear Regulatory Commission
Mail Station P1-37
Washington, D. C. 20555-0001

NRC Resident Inspector - DAEC
DOCU

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NRC FORM 366 (4-95) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 04/30/98

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Duane Arnold Energy Center	05000-331	1 OF 3

TITLE (4)
Failure of Four Main Steam Relief Valves and One Safety Valve to Meet their Technical Specifications Setpoints.

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 NAME	DOCKET NUMBER
12	3	96	96	-- 07	-- 00	01	16	97		05000-331
									FACILITY NAME	DOCKET NUMBER 05000-331

		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)			
OPERATING MODE (9)	1	20.2201(b)	20.2203(a)(2)(v)	50.73(a)(2)(i)	50.73(a)(2)(viii)
POWER LEVEL (10)	85	20.2203(a)(1)	20.2203(a)(3)(i)	50.73(a)(2)(ii)	50.73(a)(2)(x)
		20.2203(a)(2)(i)	20.2203(a)(3)(ii)	50.73(a)(2)(iii)	73.71
		20.2203(a)(2)(ii)	20.2203(a)(4)	50.73(a)(2)(iv)	X OTHER
		20.2203(a)(2)(iii)	50.36(c)(1)	50.73(a)(2)(v)	Specify in Abstract below or in NRC Form
		20.2203(a)(2)(iv)	50.36(c)(2)	50.73(a)(2)(vii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
Robert Murrell, Licensing Specialist	319-851-7900

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
X	SB	RV	T020	Y						

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE).	X NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On December 3, 1996, as found testing was completed at Wyle Labs for the Main Steam Relief Valves (MSRVs) and Main Steam Safety Valves (MSSVs) removed during Refueling Outage 14. Five of the eight valves failed to meet the setpoint requirements of Technical Specification Limiting Safety System Setting.

All MSRVs and MSSV were restored to within their Technical Specification Limiting Safety System Settings. The overall system performance as found would have ensured no vessel over-pressurization could occur.

This report is provided for information on these events.

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

I. DESCRIPTION OF EVENT:

On December 3, 1996, as found testing was completed at Wyle Labs for the Main Steam Relief Valves (MSRVs) and Main Steam Safety Valves (MSSVs) removed during Refueling Outage 14. Five of the eight valves failed to meet the setpoint requirements of Technical Specification Limiting Safety System Setting.

All MSRVs and MSSVs are currently within their Technical Specification Limiting Safety System Setting. Engineering is currently evaluating the cause for these failures. This report is provided for information on these events.

Technical Specification Requirements:

Technical Specification (TS) 4.6.D.1 requires once per operating cycle, at least one safety valve and three relief valves shall be removed, set pressure tested and reinstalled or replaced with spares that have been previously set pressure tested. The safety and relief valves shall be rotated, at least once per 40 months, such that both safety and 6 relief valves are removed, set pressure tested and reinstalled or replaced with spares. Any spare that is installed must have been set pressure tested within the previous 40 months.

The setpoint of the safety valves shall be as specified in specification 2.2 (1%).

This license event report is being submitted in addition to the summary technical report required by TS 6.11.1.d.

Test results:

Results of as-found testing for the valves removed during Refueling Outage 14 completed on December 3, 1996, indicated that four MSRVs and one MSSV failed. These were MSRVs PSV4400, PSV4402, PSV4406 and PSV4407 and MSSV PSV4404. Testing of the remaining three MSRVs and MSSV found the setpoint to be within the TS limit. The following is a summary of the as-found test results:

Valve	Specified Setpoint	Pass/Fail Setpoint	As-found Setpoint	% out of spec
PSV4400	1130 ± 11	Fail	1106	-2.1%
PSV4401	1120 ± 11	Pass	1130	+0.9%
PSV4402	1130 ± 11	Fail	1152	+1.9%
PSV4403	1240 ± 11	Pass	1232	-0.6%
PSV4404	1240 ± 11	Fail	1261	+1.7%
PSV4405	1140 ± 11	Pass	1140	0.0%
PSV4406	1140 ± 11	Fail	1173	+2.9%
PSV4407	1110 ± 11	Fail	1138	+2.5%

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

II. CAUSE OF EVENT:

The cause of the failures is being analyzed at this time.

III. ANALYSIS OF EVENT:

Cycle reload analysis for the previous cycle was performed with a tolerance of 3%. No setpoints exceeded this tolerance, therefore, the vessel over-pressure function would have performed within analyzed limits. The average drift was +0.9%. The as found condition of individual valves exceeded specified tolerances, but the overall system performance ensured design margin to vessel over-pressurization limits was maintained.

IV. CORRECTIVE ACTIONS:

The DAEC continues to evaluate methods for optimizing MSRV/MSSV performance. All pilots were replaced with pilots that were already set pressure tested.

V. ADDITIONAL INFORMATION:

A. EIIS System and Component Codes:

SV: Relief Valve