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 FACIL:50-331 Duane Arnold Energy Center, Iowa Electric Light & Pow 05000331
 AUTH.NAME AUTHOR AFFILIATION
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 WILSON,D.L. Iowa Electric Light & Power Co.
 RECIP.NAME RECIPIENT AFFILIATION
 DAVIS,A.B. Region 3 (Post 820201)

SUBJECT: Monthly operating rept for Mar 1991 for Duane Arnold Energy Center.W/910415 ltr.

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Iowa Electric Light and Power Company

April 15, 1991
DAEC-91-0287

Mr. A. Bert Davis
Regional Administrator
Region III
U. S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

Subject: Duane Arnold Energy Center
Docket No: 50-331
Op. License DPR-49
March 1991 Monthly Operating Report

Dear Mr. Davis:

Please find enclosed the Duane Arnold Energy Center Monthly Operating Report for March 1991. The report has been prepared in accordance with the guidelines of NUREG-0020 and distribution has been made in accordance with DAEC Technical Specifications, Section 6.11.1.c.

Very truly yours,



David L. Wilson
Plant Superintendent - Nuclear

DLW/ht/pwj
Enclosures
File A-118d

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OPERATING DATA REPORT

DOCKET NO. 050-0331
DATE 04-15-91
COMPLETED BY Hai Tran
TELEPHONE (319) 851-7491

OPERATING STATUS

1. Unit Name: Duane Arnold Energy Center
2. Reporting Period: March 1991
3. Licensed Thermal Power (MWt): 1658
4. Nameplate Rating (Gross MWe): 565 (Turbine)
5. Design Electrical Rating (Net MWe): 538
6. Maximum Dependable Capacity (Gross MWe): 565
7. Maximum Dependable Capacity (Net MWe): 538

Notes

8. If Changes Occur in Capacity Ratings (Items Number 3 through 7) Since the Last Report, Give Reasons: N/A

9. Power Level to Which Restricted, If Any (Net MWe): N/A

10. Reasons for Restrictions, If Any: N/A

	This Month	Yr-to-Date	Cumulative
11. Hours in Reporting Period	<u>744.0</u>	<u>2160.0</u>	<u>141672.0</u>
12. Number of Hours Reactor Was Critical	<u>744.0</u>	<u>1885.6</u>	<u>102396.4</u>
13. Reactor Reserve Shutdown Hours	<u>.0</u>	<u>.0</u>	<u>192.8</u>
14. Hours Generator On-Line	<u>744.0</u>	<u>1832.8</u>	<u>99541.0</u>
15. Unit Reserve Shutdown Hours	<u>.0</u>	<u>.0</u>	<u>.0</u>
16. Gross Thermal Energy Generated (MWH)	<u>1200669.6</u>	<u>2931307.2</u>	<u>132652541.2</u>
17. Gross Electrical Energy Generated (MWH)	<u>399292.0</u>	<u>977936.0</u>	<u>44531827.0</u>
18. Net Electrical Energy Generated (MWH)	<u>375978.7</u>	<u>917253.9</u>	<u>41534955.1</u>
19. Unit Service Factor	<u>100.0</u>	<u>84.9</u>	<u>70.3</u>
20. Unit Availability Factor	<u>100.0</u>	<u>84.9</u>	<u>70.4</u>
21. Unit Capacity Factor (Using MDC Net)	<u>93.9</u>	<u>78.9</u>	<u>56.8</u>
22. Unit Capacity Factor (Using DER Net)	<u>93.9</u>	<u>78.9</u>	<u>54.8</u>
23. Unit Forced Outage Rate	<u>0.0</u>	<u>7.6</u>	<u>13.7</u>
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of each: <u>N/A</u>)			
25. If Shutdown at End of Report Period, Est. Date of Startup: <u>N/A</u>			

(9/77)

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 050-0331
DATE 04-15-91
COMPLETED BY Hai Tran
TELEPHONE (319) 851-7491

MONTH March 1991

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

1	499.0
2	504.0
3	496.0
4	506.0
5	499.0
6	506.0
7	504.0
8	502.0
9	502.0
10	491.0
11	513.0
12	504.0
13	524.0
14	522.0
15	518.0

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

16	521.0
17	500.0
18	519.0
19	516.0
20	514.0
21	511.0
22	513.0
23	389.0
24	494.0
25	511.0
26	502.0
27	517.0
28	521.0
29	526.0
30	524.0
31	498.0

REFUELING INFORMATION

DOCKET NO. 50-0331
DATE 04-15-91
COMPLETED BY Hai Tran
TELEPHONE (319) 851-7491

1. Name of facility.

a. Duane Arnold Energy Center

2. Scheduled date for next refueling shutdown.

a. March 1, 1992

3. Scheduled date for restart following refueling.

a. May 1, 1992

4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?

N/A

5. Scheduled date(s) for submitting proposed licensing action and supporting information.

N/A

6. Important licensing considerations associated with refueling, e.g., new or different fuel design or supplier, unreviewed design or performance analysis methods, significant changes in fuel design, new operating procedures.

N/A

7. The number of fuel assemblies (a) in the core and (b) in the spent fuel storage pool.

a. 368 b. 1048

8. The present licensed spent fuel pool storage capacity and the size of any increase in licensed storage capacity that has been requested or is planned, in number of fuel assemblies.

a. 2050 - Licensed Capacity or
b. 1898 under the presently installed storage rack capacity.

9. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity.

a. 2000 - Licensed Capacity or
b. 1997 under the presently installed storage rack capacity.

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: March 1991

Docket No.: 050-0331

Unit: Duane Arnold Energy Center

Date: 04-15-91

Completed By: Hai Tran

Telephone: (319) 851-7491

No.	Date	Type(1)	Duration (Hours)	Reason(2)	Method of Shutting (3) Down Reactor	Licensee Event Report #	System Code (4)	Comp. Code (5)	Cause
1.	03-23-91	S	0.0	B	5	N/A	N/A	N/A	Reactor power was reduced to 50% to allow for a control rod sequence exchange and planned maintenance activities.

1 - F: Forced
S: Scheduled

2 - Reason:
A-Equipment Failure (Explain)
B-Maintenance or Test
C-Refueling
D-Regulatory Restriction
E-Operator Training & License Examination
F-Administrative
G-Operational Error (Explain)
H-Other (Explain)

3 - Method
1-Manual
2-Manual Scram
3-Automatic Scram
4-Continued
5-Reduced Load
9-Other (Explain)

4 - Exhibit G-
Instructions for
Preparation of Data
Entry Sheets for
Licensee Event Report
(LER) File (NUREG-
0161)

5 - Exhibit 1-
Same Source

MAJOR/SAFETY RELATED MAINTENANCE

Docket No.: 050-0331
 Unit: Duane Arnold Energy Center
 Date: 04-15-91
 Completed By: Hai Tran
 Telephone: (319) 851-7491

DATE	SYSTEM	COMPONENT	DESCRIPTION
03-05-91	Source Range Monitor (SRM)	SRM Log Count Rate Meter	The meter was sticking at several points. The meter was replaced.
03-12-91	Feedwater System	Feedwater Flow Transmitter	A new feedwater flow transmitter has been installed and verified to be operating properly.
03-23-91	Circulating Water System	Condenser-Differential Pressure Transmitters	Four condenser differential pressure transmitters were inspected and the instrument lines were cleaned.
03-25-91	Reactor Building Closed Cooling Water System (RBCCW)	RBCCW Pump 'B'	The pump was excessively noisy. The mechanical seal was found cracked and the bearing was dirty. The seal was replaced, and the bearing was cleaned. The pump was aligned and returned to service.

NARRATIVE SUMMARY OF OPERATING EXPERIENCE

DOCKET NO. 050-0331
DATE 04-15-91
COMPLETED BY Hai Tran
TELEPHONE (319) 851-7491

- 03-01-91 The plant was operating at 96.8% of rated thermal power delivering 499.0 MWe to the grid. The reactor power was still limited to 97% due to potential drifting of a feedwater flow transmitter. There was no 10 CFR 50.73 reportable event during the month.
- 03-12-91 A new feedwater flow transmitter has been installed and verified to be operating properly. The 97% reactor power limit was lifted and the plant returned to 100% power.
- 03-23-91 Early in the morning, reactor power was reduced to 50% to allow for a control rod sequence exchange and planned maintenance. Reactor power was increased to full power later on the same day after the completion of the rod sequence exchange and maintenance.
- 03-31-91 The plant was operating at 96.3% of rated thermal power delivering 498.0 MWe to the grid, with the return to 100% in progress after weekend inspections.