

# OPERATING DATA REPORT

DOCKET NO. 050-0331

DATE 7-15-84

COMPLETED BY Ken S. Putnam

TELEPHONE 319-851-7456

## OPERATING STATUS

1. Unit Name Duane Arnold Energy Center
2. Reporting Period June, 1984
3. Licensed Thermal Power (Mwt): 1658
4. Nameplate Rating (Gross MWe): 565
5. Design Electrical Rating (Net MWe): 538
6. Maximum Dependable Capacity (Gross MWe): 545
7. Maximum Dependable Capacity (Net MWe): 515

Notes

8. If Changes Occur In Capacity Ratings (Items Number 3 Through 7) Since the Last Report, Give Reasons:

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

10. Reasons For Restrictions, If Any:

	This Month	Yr-to-Date	Cumulative
11. Hours In Reporting Period	<u>720.0</u>	<u>4367.0</u>	<u>82511.0</u>
12. Number of Hours Reactor Was Critical	<u>295.9</u>	<u>3028.5</u>	<u>58963.5</u>
13. Reactor Reserve Shutdown Hours	<u>150.3</u>	<u>150.3</u>	<u>150.3</u>
14. Hours Generator On-Line	<u>241.5</u>	<u>2930.5</u>	<u>57373.2</u>
15. Unit Reserve Shutdown Hours	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
16. Gross Thermal Energy Generated (MWH)	<u>293287</u>	<u>4268656</u>	<u>72017219</u>
17. Gross Electrical Energy Generated (MWH)	<u>93133</u>	<u>1445283</u>	<u>24139340</u>
18. Net Electrical Energy Generated (MWH)	<u>86849</u>	<u>1361982</u>	<u>22600572</u>
19. Unit Service Factor	<u>33.5</u>	<u>67.1</u>	<u>69.5</u>
20. Unit Availability Factor	<u>33.5</u>	<u>67.1</u>	<u>69.5</u>
21. Unit Capacity Factor (Using MDC Net)	<u>23.4</u>	<u>60.6</u>	<u>53.2</u>
22. Unit Capacity Factor (Using DER Net)	<u>22.4</u>	<u>58.0</u>	<u>50.9</u>
23. Unit Forced Outage Rate	<u>35.7</u>	<u>20.1</u>	<u>17.4</u>

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):

25. If Shut Down At End Of Report Period, Estimated Date of Startup:

\* Turbine Rating: 565.7 MWe

Generator Rating: 663.5 (MVA) x .90 (Power Factor) = 597 MWe

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(9/77)

# AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 050-0331

UNIT Duane Arnold Energy Center

DATE 7-15-84

COMPLETED BY Ken S. Putnam

TELEPHONE 319-851-7456

MONTH June, 1984

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0
11	0
12	0
13	0
14	0
15	79
16	229

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	258
18	271
19	368
20	452
21	480
22	479
23	478
24	470
25	48
26	0
27	0
28	0
29	0
30	0
31	-

## INSTRUCTIONS

On this format, list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt.

(9/77)

## UNIT SHUTDOWNS AND POWER REDUCTIONS

Docket No. 050-0331Unit Name Duane Arnold Energy CenterDate 7-15-84Completed by Ken S. PutnamTelephone 319-851-7456REPORT MONTH June, 1984

No.	Date	Type <sup>1</sup>	Duration (Hours)	Reason <sup>2</sup>	Method of Shutting Down Reactor <sup>3</sup>	Licensee Event Report #	System <sup>4</sup> Code	Component <sup>5</sup> Code	Cause & Corrective Action to Prevent Recurrence
4	05-17-84	S	344.3	B	1	LER 84-016	JM	ISV	"C" Inboard MSIV piston/main disc separation. Valve repaired. Outage prolonged due to inoperability of main generator.
5	06-25-84	F	134.2	A	1	LER 84-021	EK	BLO	Failure of scavenger air blower rendered "B" diesel generator inoperable.

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-Other(Explain)

4  
Exhibit G-Instructions  
for Preparation of Data  
Entry Sheets for Licensee  
Event Report (LER) File (NUREG-  
0151)

5  
Exhibit I-Same Source

MAJOR SAFETY RELATED MAINTENANCE

Docket No. 050-0331  
Unit Duane Arnold Energy Center  
Date July 15, 1984  
Completed by Kenneth S. Putnam  
Telephone 319-851-7456

DATE	SYSTEM	COMPONENT	DESCRIPTION
06-06-84	Main Steam Lines	"C" Inboard MSIV "C" Outboard MSIV "B" Inboard MSIV	Completed repairs and inspections Initiated May 17, 1984. (LER 84-016)
06-19-84	Reactor Protection System	Reactor High Pressure Switches	Recalibrated pressure switches that had drifted high. (LER 84-023)
06-30-84	Standby Diesel Generators	Diesel Generator 1G-21	Replaced scavenging air blower, blower drive gears and coupling, and turbocharger. Performed engine and generator inspections. (LER 84-021)

Docket No. 050-0331  
Unit Duane Arnold Energy Ctr  
Date July 15, 1984  
Completed by Ken S. Putnam  
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REFUELING INFORMATION

1. Name of facility.  
A. Duane Arnold Energy Center
2. Scheduled date for next refueling shutdown.  
A. January, 1985 (Tentative schedule)
3. Scheduled date for restart following refueling.  
A. April, 1985
4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?  
Yes.  
A. Reload license submittal including power uprate.  
B. Additional MAPLHGR curves for new fuel bundles being introduced for Cycle 8.
5. Scheduled date(s) for submitting proposed licensing action and supporting information.  
July, 1984
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.  
None
7. The number of fuel assemblies (a) in the core and (b) in the spent fuel storage pool.  
A. a) 368 b) 576
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
9. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity.  
A. 1998

Docket No. 055-0331  
Unit Duane Arnold Energy Ctr  
Date July, 1984  
Completed by Ken Putnam  
Telephone 319-851-7456

#### NARRATIVE SUMMARY OF OPERATING EXPERIENCE

- 06-01-84 Reactor in cold shutdown. Outage for repair of main steam isolation valves continues.
- At 1613 hours a fire alarm was received as a result of minor smoke produced when the motor for the "A" river water supply pump burned out.
- 06-03-84 At 1750 hours the reactor water cleanup system isolated due to a spurious electrical signal. Similar spurious isolations occurred on 06-05-84 and 06-06-84.  
(LER 84-019)
- 06-07-84 At 1146 hours the reactor was critical. Multiple criticalities were achieved for operator training while awaiting the completion of repairs to the main generator due to a hydrogen seal leak.
- 06-13-84 At 1902 hours the reactor was critical.
- 06-14-84 At 0245 hours the HPCI turbine exhibited slower than usual fast start times. Additional testing and inspection demonstrated HPCI turbine operability by 1150 hours.
- At 1348 hours the reactor was driven subcritical for drywell inspection. At 1615 hours the reactor was again critical.
- 06-15-84 At 0819 hours the generator was put on line.
- 06-16-84 At 0106 hours the "A" reactor feed pump tripped due to an oil line orifice sizing problem.
- 06-17-84 At 1707 hours a standby filter unit tripped on a spurious high radiation signal. The unit tripped again at 1725 hours. A lightning storm is believed to have caused the spurious signals.  
(LER 84-020 pending)
- At 2055 hours the "B" standby diesel generator tripped during testing due to failure of the scavenger air blower. The "B" diesel generator was declared inoperable commencing a 7 day LCO.  
(LER 84-021)
- 06-18-84 A personnel error was discovered which had left a breaker tripped on the "B" river water supply screen-wash-pump for the previous 3 days. (River water supply system continued to supply Tech. Spec. required flow in both loops throughout this period.)



06-19-84 AT 1537 hours a spurious one-half Group III primary containment isolation occurred with initiation of one standby gas treatment system.  
(LER 84-022 pending)

Three out of four RPS reactor high pressure switch setpoints were found drifted high during surveillance testing.  
(LER 84-023 pending)

06-20-84 The first of four shipments of Cycle 8 fuel bundles was received on-site. The next three shipments were received by 06-29-84.

At 1346 hours a conductivity element in the demineralization sample system was declared inoperable as a result of conservative drifting. A 30-day LCO was commenced.

At 1643 hours the "A" side standby filter unit initiated on a spurious high radiation signal.  
(LER 84-020 pending)

06-24-84 The replacement scavenger air blower for the inoperable "B" standby diesel generator was found rubbing. As the delay in repairs to the diesel generator would exceed the time limit set by the 7-day LCO, a controlled shutdown was commenced. At 1711 hours an Unusual Event was declared due to the initiation of a shutdown required by Technical Specifications.

At 2055 hours a 24-hour LCO commenced due to the inoperability of the standby diesel generator for 7 days.

06-25-84 At 0801 hours the main generator was taken off-line.

At 0907 hours the reactor was subcritical.

At 1655 hours the head vents were opened, placing the reactor in cold shutdown ending the 24-hour LCO and the Unusual Event.

06-30-84 At 0642 hours the reactor was critical. At 1030 hours the reactor was driven subcritical for drywell entry and inspection.

At 1333 hours a spurious signal caused the isolation of the reactor water clean-up system.  
(LER 84-024 pending)

At 2212 hours the main generator was placed on-line.

At 2400 hours the plant was operating at 45 MWe (gross) and increasing in normal plant start-up.

Iowa Electric Light and Power Company  
July 13, 1984  
DAEC-84-445

Director, Office of Inspection and Enforcement  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

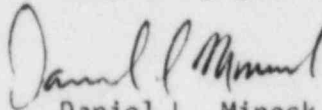
Attn: Document Control Desk

Subject: Duane Arnold Energy Center  
Docket No. 50-331  
Op. License DPR-49  
June, 1984 Monthly Operating Report

Dear Sirs:

Please find enclosed 12 copies of the Duane Arnold Energy Center Monthly Operating Report for June, 1984. The report has been prepared in accordance with the guidelines of Regulatory Guide 1.16 and distribution has been made in accordance with DAEC Technical Specifications, Appendix A, Section 6.11.1.c and Regulatory Guide 10.1.

Very truly yours,



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

DLM/KSP/kp\*  
Enclosures  
File A-118d, TE-5

cc: Director, Office of Inspection  
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