

OPERATING DATA REPORT

DOCKET NO. 050-0331

DATE 01-15-85

COMPLETED BY Kenneth S. Putnam

TELEPHONE 319-851-7456

OPERATING STATUS

Notes

1. Unit Name Duane Arnold Energy Center
2. Reporting Period December, 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
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): Average maximum attainable power was approximately 90% of full power.
10. Reasons For Restrictions, if Any: Coastdown due to fuel depletion. Maximum attainable power levels were approximately 94% power on December 1, 1984 and reduced to approximately 86.4% power on December 31, 1984.

	This Month	Yr-to-Date	Cumulative
11. Hours in Reporting Period	<u>744.0</u>	<u>8784.0</u>	<u>86928.0</u>
12. Number of Hours Reactor Was Critical	<u>744.0</u>	<u>6637.2</u>	<u>62588.7</u>
13. Reactor Reserve Shutdown Hours	<u>0.0</u>	<u>150.3</u>	<u>150.3</u>
14. Hours Generator On-Line	<u>744.0</u>	<u>6405.0</u>	<u>60847.7</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>960578</u>	<u>8711373</u>	<u>76459935</u>
17. Gross Electrical Energy Generated (MWH)	<u>319079</u>	<u>2893297</u>	<u>25587354</u>
18. Net Electrical Energy Generated (MWH)	<u>299127</u>	<u>2717560</u>	<u>23956151</u>
19. Unit Service Factor	<u>100.0</u>	<u>72.9</u>	<u>70.0</u>
20. Unit Availability Factor	<u>100.0</u>	<u>72.9</u>	<u>70.0</u>
21. Unit Capacity Factor (Using MDC Net)	<u>78.1</u>	<u>60.1</u>	<u>53.5</u>
22. Unit Capacity Factor (Using DER Net)	<u>74.7</u>	<u>57.5</u>	<u>51.2</u>
23. Unit Forced Outage Rate	<u>0.0</u>	<u>14.1</u>	<u>17.0</u>

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

Refuel Outage beginning 2/1/85 lasting approximately 16 weeks

8501230511 841231  
PDR ADOCK 05000331  
PDR  
R

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

IEJ  
1/1 (9/77)

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 050-0331

UNIT Duane Arnold Energy Center

DATE 01-15-85

COMPLETED BY Kenneth S. Putnam

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MONTH December, 1984

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	404
2	403
3	410
4	410
5	418
6	427
7	431
8	297
9	445
10	458
11	445
12	448
13	448
14	444
15	436
16	424

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	443
18	449
19	441
20	443
21	435
22	442
23	439
24	304
25	283
26	330
27	364
28	105
29	358
30	439
31	435

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.

UNIT SHUTDOWNS AND POWER REDUCTIONS

Docket No. 050-0331  
 Unit Name Duane Arnold Energy Center  
 Date 01-15-85  
 Completed by Kenneth S. Putnam  
 Telephone 319-851-7456

REPORT MONTH December, 1984

No.	Date					Licensee Event Report #			Cause
12	12-08-84	F	0	A	4	None	AD	EXC	Power reduced for removing "B" Recirculation M/G set from service. The M/G set was experiencing excessive sparking. The M/G set was inspected, exciter windings cleaned, slip rings resurfaced and brushes replaced.
13	12-24-84	F	0	A	4	None	SJ	P-01B	Reactor Feed Pump 1P-1B developed a leak in the area of a casing bolt. Power was reduced for repairs.
14	12-28-84	F	0	A	4	None	SK	PSP	A leak developed on the return line from the 1A feedwater pump seals to the 1E-4A heater drain.

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-  
 0161)

5  
 Exhibit 1-Same Source

MAJOR/SAFETY RELATED MAINTENANCE

Docket No. 050-0331  
Unit Duane Arnold Energy Center  
Date 01-15-85  
Completed by Kenneth S. Putnam  
Telephone 319-851-7456

DATE	SYSTEM	COMPONENT	DESCRIPTION
12/07/84	Fire Suppression	Supply Valve	Installed new bonnet. (LER 84-044)
12/08/84	Reactor Recirculation System	Motor/Generator Set	Exciter windings cleaned, slip rings resurfaced, and brushes replaced. (See Unit Shutdowns & Power Reductions, #12)
12/24/84	Feedwater System	"B" Reactor Feedwater Pump	Plugged leak near casing bolt. (See Unit Shutdowns & Power Reductions, #13)
12/28/84	Feedwater System	"A" Reactor Feedwater Pump Seal Water Return Line	Repaired leak. (See Unit Shutdowns & Power Reductions, #14)

REFUELING INFORMATION

1. Name of facility.  
A. Duane Arnold Energy Center
2. Scheduled date for next refueling shutdown.  
A. February, 1985
3. Scheduled date for restart following refueling.  
A. May, 1985
4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?  
Yes.  
A. Reload license submittal.  
B. Additional MAPLHGR curves for new fuel bundles being introduced for Cycle 8.  
C. Revised Spent Fuel Storage Technical Specifications.  
D. Supplemental Reload License submittal for Cycle 8 Lead Test Fuel Assemblies including MAPLHGR curves.
5. Scheduled date(s) for submitting proposed licensing action and supporting information.  
A. Submitted  
B. Submitted  
C. Submitted  
D. Submitted
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.  
5 GE Lead test assemblies which incorporate advanced fuel designs will be loaded for Cycle 8.
7. The number of fuel assemblies (a) in the core and (b) in the spent fuel storage pool.  
A. a) 368 b) 576

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REFUELING INFORMATION (Continued)

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

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NARRATIVE SUMMARY OF OPERATING EXPERIENCE

- 12/01/84 At 0000 hours the plant was in normal operation at approximately 430 MWe (gross).
- 12/04/84 Maintenance repair activities rendered Turbine Building exhaust effluent sampling inoperable for approximately 3 hours during period of no radiological releases. (Normal radioactive effluent pathways monitoring remained operable.)
- 12/06/84 At 0730 the "A" Standby Filter Unit auto-initiated as a result of low ventilation inlet temperature.  
(LER 84-043)
- 12/07/84 At 1703 hours it was discovered that maintenance activities had rendered one of the Reactor Building fire hose stations inoperable. Corrective actions were promptly taken to restore the station to an operable condition.  
(LER 84-044)
- 12/08/84 AT 0502 hours operations personnel noted the smell of hot or burning material in the area of the Recirculation M/G set room. Investigation revealed excessive sparking inside the "B" M/G set exciter. A fire watch was posted and power reduction commenced to permit repairs. At 0545 hours a 24-hour LCO commenced when the "B" Recirculation pump was taken out of service thus beginning single-loop operation. At 1912 hours repairs were completed and the "B" recirculation pump was returned to service ending the 24-hour LCO.
- 12/15/84 At 1220 hours the "B" Standby Filter Unit was declared inoperable when a solenoid valve controlling an exhaust damper was found to have a supply air leak. A 7-day LCO commenced. Repairs were completed by 1929 hours ending the 7-day LCO.
- 12/23/84 At 0538 hours a drywell equipment drain sump outlet flow transmitter was found to be performing erratically. The system was declared inoperable commencing a 7-day LCO. The system was returned to service at 1650 hours ending the 7-day LCO.
- 12/24/84 At 0345 hours a leak was detected on the "B" reactor feedwater pump. Power was reduced to permit taking the pump out of service for repairs. At 1432 hours, with the leak repaired, the "B" reactor feedwater pump was returned to service and power increase commenced.
- 12/26/84 At 1455 hours operators found a blown fuse in the power supply to a solenoid valve on the liquid sample return line of the Post-Accident Sampling System. The system was declared inoperable commencing a 7-day LCO for the restoration of sampling capabilities. The system was restored to service at 1503 hours on 12/27/84 ending the 7-day LCO.

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NARRATIVE SUMMARY OF OPERATING EXPERIENCE (Cont)

12/27/84 At 0200 hours the "C" RHR Service Water System was declared inoperable as a result of a leaking auto-vent valve. A 30-day LCO commenced.

At 1515 hours a leak was detected in the area of the "A" Feedwater Pump seal water return line. Power was reduced to approximately 10% of rated power to permit repair of the leak.

12/28/84 At 1740 hours the leak repairs were completed and power increase commenced.

12/29/84 AT 1753 hours, repair and testing of the "C" RHR Service Water System was completed ending the 30-day LCO.

12/31/84 At 2400 hours the plant was in normal operation at 465 MWe gross.



Iowa Electric Light and Power Company  
January 15, 1985  
DAEC-85-029

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

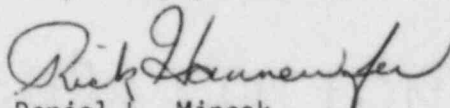
Attn: Document Control Desk

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

Dear Sirs:

Please find enclosed 12 copies of the Duane Arnold Energy Center Monthly Operating Report for December, 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  
and Enforcement  
U. S. Nuclear Regulatory Commission  
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Director, Office of Management and  
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U. S. Nuclear Regulatory Commission  
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LE24  
1/1



Iowa Electric light and power company

DUANE ARNOLD ENERGY CENTER  
PALO, IOWA

January 15, 1985

TO: B. Peterson  
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P. Seckman  
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FROM: D. Mineck  
Plant Superintendent - Nuclear

FILE: A-118d, TE-5

Please find attached one copy of the Monthly Operating Report for December 1984, that has been transmitted to the NRC.

kp\*