

OPERATING DATA REPORT

DOCKET NO. 050-0331

DATE 11-15-84

COMPLETED BY Kenneth S. Putnam

TELEPHONE 319-851-7456

OPERATING STATUS

Notes

1. Unit Name Duane Arnold Energy Center
2. Reporting Period October, 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): \_\_\_\_\_
10. Reasons For Restrictions, if Any: \_\_\_\_\_

	This Month	Yr-to-Date	Cumulative
11. Hours in Reporting Period	<u>745.0</u>	<u>7320.0</u>	<u>85464.0</u>
12. Number of Hours Reactor Was Critical	<u>223.4</u>	<u>5387.1</u>	<u>61338.6</u>
13. Reactor Reserve Shutdown Hours	<u>0.0</u>	<u>150.3</u>	<u>150.3</u>
14. Hours Generator On-Line	<u>158.0</u>	<u>5201.6</u>	<u>59644.3</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>96513</u>	<u>7341820</u>	<u>75090382</u>
17. Gross Electrical Energy Generated (MWH)	<u>26210</u>	<u>2442787</u>	<u>25136844</u>
18. Net Electrical Energy Generated (MWH)	<u>23633</u>	<u>2296729</u>	<u>23535320</u>
19. Unit Service Factor	<u>21.2</u>	<u>71.1</u>	<u>69.8</u>
20. Unit Availability Factor	<u>21.2</u>	<u>71.1</u>	<u>69.8</u>
21. Unit Capacity Factor (Using MDC Net)	<u>6.2</u>	<u>60.9</u>	<u>53.5</u>
22. Unit Capacity Factor (Using DER Net)	<u>5.9</u>	<u>58.3</u>	<u>51.2</u>
23. Unit Forced Outage Rate	<u>0.0</u>	<u>13.2</u>	<u>17.0</u>

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):  
Refuel Outage, February 1985

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

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R PDR

JE 24  
111 (9/77)

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 050-0331

UNIT Duane Arnold Energy Center

DATE 11-15-84

COMPLETED BY Kenneth S. Putnam

TELEPHONE 319-851-7456

MONTH October, 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	0
16	0

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	0
18	0
19	0
20	0
21	0
22	0
23	0
24	0
25	31
26	117
27	94
28	179
29	170
30	160
31	207

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 11-15-84  
 Completed by Kenneth S. Putnam  
 Telephone 319-851-7456

REPORT MONTH October, 1984

No.	Date	Type <sup>1</sup>	Duration (Hours)	Reason <sup>2</sup>	Method of Shutting <sup>3</sup> Down Reactor	Licensee Event Report #	System <sup>4</sup> Code	Component <sup>5</sup> Code	Cause & Corrective Action to Prevent Recurrence
8	9-29-84	S	587.0	B	1				Scheduled General Maintenance Outage Continued from September

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

Docket No. 050-0331  
Unit Duane Arnold Energy Center  
Date November, 1984  
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MAJOR SAFETY RELATED MAINTENANCE

DATE	SYSTEM	COMPONENT	DESCRIPTION
10-3-84	Main Steam	Main Steam Isolation Valves	Cleaned and lubricated spring guides on actuators.
10-20-84	HPCI	MOV-2202 HPCI Turbine Steam Supply	Disassembled and repaired valve to prevent packing leaking.
10-20-84	Condensate Storage	Condensate Storage Tank(s)	Drained and inspected.
10-21-84	HPCI Steam Leak Detection System	Temperature Switches	Installed time delay to reduce HPCI Steam Leak Detection system's susceptibility to spurious, isolation signals following loss of offsite power.  (LER 84-28 Update Pending)

Docket No. 050-0331  
Unit Duane Arnold Energy Ctr  
Date 11-15-84  
Completed by Kenneth 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. 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	C. December, 1984
B. Submitted	D. December, 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.

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

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

NARRATIVE SUMMARY OF OPERATING EXPERIENCE

- 10-01-84 At 0000 hours the reactor was in cold shutdown continuing the scheduled maintenance outage that began 9-29-84.
- 10-15 4 Special testing of the HPCI steam leak detection system was conducted regarding Temperature Switch and Temperature Differential switch response to loss and restoration of AC power.  
(LER 84-028)  
(Update pending)
- 10-19-84 A sample of oil in the "B" Cooling Tower power supply transformer revealed a deterioration of insulating properties. The transformer was removed from service for repair. No failure of the transformer occurred.
- 10-20-84 The reactor water cleanup system isolated due to a spurious signal from the leak detection system.  
(LER 84-036)
- 10-21-84 A minor design change to the HPCI steam leak detection system was completed which eliminated the potential for spurious HPCI isolation on restoration of vital (AC) power.  
(LER 84-028)  
(Update pending)
- 10-21-84 At 2127 hours the reactor was critical.
- 10-22-84 At 0640 hours the reactor was driven subcritical for routine drywell entry and inspection. At 0938 hours the reactor was again critical.  
  
At 1600 hours condenser conductivity was noted to be increasing indicating a condenser tube leak. At 1800 hours, power reduction began in anticipation of startup delay for repair of condenser tube leaks.
- 10-23-84 At 1108 hours the reactor was again critical and placed in Hot Standby awaiting completion of condenser repairs.
- 10-24-84 At 1010 hours a 24 hour LCO was entered and an Unusual Event was declared when surveillance testing indicated both fuel oil transfer pumps for the Diesel Generators were slightly below ASME limits for flow rate. The Diesel Generators were conservatively declared inoperable. Additional investigation determined that the transfer pumps performance was fully acceptable. The Unusual Event and all LCO's were ended by 1922 hours.



NARRATIVE SUMMARY OF OPERATING EXPERIENCE (Continued)

- 10-25-84 Power Increase commenced again following completion of condenser repairs and at 1102 hours the Main Generator was on-line. Power levels were limited to approximately 40% by the inoperability of the BOP mechanical draft cooling tower power supply transformers. The cooling towers were operating in a natural draft mode.
- 10-28-84 At 1120 reactor coolant water conductivity was noted to be increasing due to suspected resin incursion. The pH of reactor coolant water was subsequently measured and found to be 5.05 (outside the acceptable normal range of 5.6 to 8.6). A 24-hour LCO was entered to restore the pH level to acceptable limits.
- 10-29-84 Testing of reactor coolant water found the pH restored to an acceptable 5.86 at 0130 hours ending the LCO.
- 10-30-84 The "B" Diesel Generator was declared inoperable as a result of intermittent receipt of field ground alarms. A 7-day LCO commenced. (Later investigation determined this to be an indication problem only.)
- 10-31-84 At 2400 hours the unit was in normal operation at 180 MWe (gross).



Iowa Electric Light and Power Company

November 15, 1984  
DAEC-84-730

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

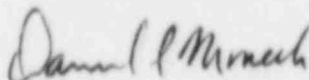
Attn: Document Control Desk

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

Dear Sirs:

Please find enclosed 12 copies of the Duane Arnold Energy Center Monthly Operating Report for October, 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  
Region III  
799 Roosevelt Road  
Glen Ellyn, IL 60137 (1)

Director, Office of Management and  
Program Analysis  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555 (1)

U. S. Nuclear Regulatory Commission  
ATTN: Mr. M. Thadani  
Phillips Bldg.  
Washington, D. C. 20555

INPO Records Center  
1100 Circle 75 Parkway  
Suite 1500  
Atlanta, GA 30339

Mr. Phillip Ross  
U. S. Nuclear Regulatory Commission  
Maryland National Bank Bldg.  
Washington, D. C. 20555

NRC Resident Inspector

Mr. Dennis Murdock  
Central Iowa Power Cooperative  
Box 2517  
Marion, IA 52302

Mr. George Toyne, Gen. Mgr.  
Corn Belt Power Cooperative  
Box 508  
Humboldt, IA 50548

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