

OPERATING DATA REPORT

DOCKET NO. 050-0331  
 DATE 10-15-84  
 COMPLETED BY Kenneth S. Putnam  
 TELEPHONE 319-851-7456

OPERATING STATUS

Notes

1. Unit Name Duane Arnold Energy Center
2. Reporting Period September, 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>720.0</u>	<u>6575.0</u>	<u>84719.0</u>
12. Number of Hours Reactor Was Critical	<u>686.2</u>	<u>5163.7</u>	<u>61115.2</u>
13. Reactor Reserve Shutdown Hours	<u>0.0</u>	<u>150.3</u>	<u>150.3</u>
14. Hours Generator On-Line	<u>678.0</u>	<u>5043.6</u>	<u>59486.3</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>783792</u>	<u>7245306</u>	<u>74993868</u>
17. Gross Electrical Energy Generated (MWH)	<u>247226</u>	<u>2416577</u>	<u>25110634</u>
18. Net Electrical Energy Generated (MWH)	<u>230675</u>	<u>2273096</u>	<u>23511686</u>
19. Unit Service Factor	<u>94.2</u>	<u>76.7</u>	<u>70.2</u>
20. Unit Availability Factor	<u>94.2</u>	<u>76.7</u>	<u>70.2</u>
21. Unit Capacity Factor (Using MDC Net)	<u>62.2</u>	<u>67.1</u>	<u>53.9</u>
22. Unit Capacity Factor (Using DER Net)	<u>59.6</u>	<u>64.3</u>	<u>51.6</u>
23. Unit Forced Outage Rate	<u>0.0</u>	<u>13.5</u>	<u>17.0</u>
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):			

Refuel Outage, February 1985

8410290318 840930  
 PDR ADOCK 05000331  
 R PDR

*IE24*  
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25. If Shut Down At End Of Report Period, Estimated Date of Startup: October 21, 1984

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 050-0331

UNIT Duane Arnold Energy Center

DATE 10-15-84

COMPLETED BY Kenneth S. Putnam

TELEPHONE 319-851-7456

MONTH September, 1984

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	476
2	337
3	348
4	422
5	393
6	336
7	329
8	330
9	324
10	333
11	331
12	258
13	298
14	362
15	393
16	336

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	339
18	336
19	332
20	333
21	333
22	331
23	328
24	298
25	352
26	351
27	347
28	301
29	12
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.

UNIT SHUTDOWNS AND POWER REDUCTIONS

Docket No. 050-0331  
 Unit Name Duane Arnold Energy Center  
 Date 10-15-84  
 Completed by Kenneth S. Putnam  
 Telephone 319-851-7456

REPORT MONTH September, 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
8	9-29-84	S	42.0	B	1, 3	84-037	JC	MON	Spurious IRM Upscale Trip at less than 1% power during scheduled shutdown for unrelated maintenance

1  
 F: Forced  
 S: Scheduled

2  
 Reason:  
 A-Equipment Failure(Explain)  
 B-Maintenance or Test  
 C-Refuelling  
 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 October, 1984  
Completed by Kenneth S. Putnam  
Telephone 319-851-7456

DATE	SYSTEM	COMPONENT	DESCRIPTION
9-4-84	Reactor Core Isolation Cooling	Motor for IP-227 Barometric Condenser Vacuum Pump	Commutator cleaned. (LER 84-031)
9-4-84	Standby Filter Unit	Intake Air Radiation Monitor 6101B	Replaced photo-multiplier tube. (LER 84-032)
9-6-84	Fire Protection	Electric Fire Pump	Adjusted pump impeller. (Special Report 84-033)

Docket No. 050-0331  
Unit Duane Arnold Energy Ctr  
Date 10-15-84  
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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.
5. Scheduled date(s) for submitting proposed licensing action and supporting information.
  - A. Submitted
  - B. 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.

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 10-15-84  
Completed by Kenneth Putnam  
Telephone 319-851-7456

NARRATIVE SUMMARY OF OPERATING EXPERIENCE

- 09-01-84 At 0000 hours, the plant was in normal operation at 534 MWe (gross). An administrative power limit goal of 70% was set for September to conserve fuel for peak winter loads.
- 09-03-84 At 1551 hours the RCIC system was declared inoperable due to the inoperability of the barometric condenser vacuum pump (1P-227). A 7 day LCO started.
- (LER 84-031)
- 09-04-84 AT 0240 hours the "B" Standby Filter Unit auto-initiated due to a downscale failure of the inlet/air radiation monitor (RE-6101B).
- (LER 84-032)
- 09-05-84 A fire was detected in the "A" cooling tower breaker house at 0936 hours. An Unusual Event was declared at 0959 hours when it was determined that the fire had burned for greater than 10 minutes. At 1200 hours the Unusual Event was officially ended. As a result of the fire the fans for the "A" cooling tower were inoperable and there was a loss of lighting in the area of the towers.
- At 2032 hours the RCIC system was declared operable ending the 7 day LCO on RCIC inoperability.
- 09-05-84 The electric fire pump was declared operable at 1747 hours.
- (Special Report LER 84-033)
- 09-16-84 At 0225 hours and again at 0500 hours the "B" Standby Filter Unit auto-initiated (LER 84-032). At 0430 hours the "B" Standby Filter Unit was declared inoperable due to a high temperature switch being out of calibration. A 7 day LCO commenced.
- 09-18-84 At 0214 hours the containment and torus purge inlet valves (CV-4306 and CV-4308) failed to close within the specified Technical Specification times during ASME testing. The valves were placed in the isolated condition. At 0612 hours the drywell to torus differential pressure dropped below 1.1 psig. This commenced a 6 hour period for reestablishing differential pressure prior to entering our LCO. At 1110 hours maintenance had been completed on the purge inlet valves and differential pressure was reestablished after than 1.1 psi.
- 09-19-84 At 0930 hours the "B" Standby Filter Unit was declared operable ending the 7 day LCO.
- 09-25-84 At 0331 hours the Reactor Water Cleanup System (RWCU) isolated on a high differential flow signal. Operators verified that no leaks existed in the system and RWCU was restored to normal status at 0400 hours.

(LER 84-036  
pending)

- 09-28-84 At 1512 hours the west header of the "B" cooling tower ruptured. Power was stabilized at 250 MWe gross with no significant transients occurring.
- 09-28-84 A scheduled shutdown for maintenance began at 2100 hours.
- 09-29-84 At 0601 hours the main generator was taken off-line. At 1413 hours with power at less than 1% the reactor scrambled as a result of a spurious IRM upscale trip.  
(LER 84-037  
pending)
- 09-29-84 At 1615 hours an Unusual Event was declared when the Emergency Notification System and normal long distance phone lines were found inoperable. The Unusual Event was cancelled at 2022 hours with restoration of phone service.
- 09-30-84 At 0256 the Reactor Water Cleanup System isolated on a spurious electrical signal. Normal system conditions were verified and the system returned to normal status.  
(LER 84-036  
pending)
- 09-30-84 At 2400 hours the plant was in cold shutdown for scheduled maintenance.



Iowa Electric Light and Power Company

October 15, 1984

DAEC-84- 662

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

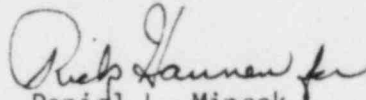
Attn: Document Control Desk

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

Dear Sirs:

Please find enclosed 12 copies of the Duane Arnold Energy Center Monthly Operating Report for September, 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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