

OPERATING DATA REPORT

DOCKET NO. 050-0331

DATE 02-15-85

COMPLETED BY Kenneth S. Putnam

TELEPHONE 319-851-7456

OPERATING STATUS

Notes

1. Unit Name Duane Arnold Energy Center
2. Reporting Period January, 1985
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 83% of full power.

10. Reasons For Restrictions, if Any: Coastdown due to fuel depletion. Maximum attainable power was approximately 86.4% power on January 1, 1985 and 79.0% on January 31, 1985.

	This Month	Yr-to-Date	Cumulative
11. Hours In Reporting Period	<u>744.0</u>	<u>744.0</u>	<u>87672.0</u>
12. Number of Hours Reactor Was Critical	<u>744.0</u>	<u>744.0</u>	<u>63332.7</u>
13. Reactor Reserve Shutdown Hours	<u>0.0</u>	<u>0.0</u>	<u>150.3</u>
14. Hours Generator On-Line	<u>744.0</u>	<u>744.0</u>	<u>61591.7</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>974568</u>	<u>974568</u>	<u>77434503</u>
17. Gross Electrical Energy Generated (MWH)	<u>325586</u>	<u>325586</u>	<u>25912940</u>
18. Net Electrical Energy Generated (MWH)	<u>304146</u>	<u>304146</u>	<u>24260297</u>
19. Unit Service Factor	<u>100.0</u>	<u>100.0</u>	<u>70.3</u>
20. Unit Availability Factor	<u>100.0</u>	<u>100.0</u>	<u>70.3</u>
21. Unit Capacity Factor (Using MDC Net)	<u>79.4</u>	<u>79.4</u>	<u>53.7</u>
22. Unit Capacity Factor (Using DER Net)	<u>76.0</u>	<u>76.0</u>	<u>51.4</u>
23. Unit Forced Outage Rate	<u>0.0</u>	<u>0.0</u>	<u>16.8</u>

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

Refuel outage beginning 2/1/85 of a duration of approximately 16 weeks.

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PDR ADOCK 05000331  
R PDR

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

IE24  
1/1

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 050-0331

UNIT Duane Arnold Energy Center

DATE 02-15-85

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MONTH January, 1985

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	433
2	437
3	427
4	424
5	426
6	419
7	418
8	429
9	420
10	423
11	367
12	410
13	416
14	417
15	416
16	409

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	412
18	400
19	399
20	407
21	399
22	400
23	400
24	395
25	400
26	323
27	395
28	399
29	393
30	393
31	391

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 02-15-85

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REPORT MONTH January, 1985

No.	Date	Reason	Method	Licensee Event Report #	Cause
None	-	-	-	-	-

- 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

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Unit Duane Arnold Energy Center

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MAJOR/SAFETY RELATED MAINTENANCE

DATE	SYSTEM	COMPONENT	DESCRIPTION
1-18-85	Diesel Generator	Jacket Coolant Hose	Replaced leaking hose
1-19-85	Standby Filter Units	Temperature Switch Controlling SFU Heaters (OT7304B)	Recalibrated temperature switch
1-22-85	Post-Accident Sampling System	Disconnect Fittings	Repositioned fittings to improve air seal



NARRATIVE SUMMARY OF OPERATING EXPERIENCE

- 01/01/85 Normal plant operation at 465 MWe (gross).
- 01/02/85 At 0359 hours, the "A" Standby Filter Unit auto-initiated as a result of low ventilation inlet air temperature.  
(LER 84-043)
- 01/17/85 At 0820 hours, workers in the Essential Switchgear Room inadvertently tripped open a breaker which rendered an emergency diesel generator inoperable. Operators were immediately informed of the event by both control room annunciation and the notification by the workers and restored the system to normal status within minutes.
- 01/18/85 At 1900 hours, surveillance testing found that the solenoid valve controlling reagent gas flow to the "A" H<sub>2</sub>O<sub>2</sub> analyzer was leaking by and could not be isolated by the normal method during testing. The "A" analyzer was conservatively declared inoperable. The "B" analyzer was already considered inoperable due to a failed valve rendering it incapable of obtaining a sample from the torus area. A 24-hour LCO was entered, a plant shutdown commenced, and an Unusual Event was declared. Special testing of the "A" H<sub>2</sub>O<sub>2</sub> analyzer confirmed that it was, in fact, operational at 1125 hours on 01/19/85, ending the Unusual Event and the 24-hour LCO.
- At 1014 hours, workers inadvertently damaged a cooling jacket line for the "B" Diesel Generator. The diesel generator was declared inoperable and a 7-day LCO commenced. Repairs were completed and the diesel generator was declared operable at 2230 hours, ending the 7-day LCO.
- At 1700 hours, the Post-Accident Sampling Station was declared inoperable when it was found to have air leakage on the drywell air sampling line. A 7-day LCO was declared to confirm that a sample could be obtained in a timely manner (within 24 hours of a decision to sample).
- 01/19/85 At 1150 hours, the "B" Standby Filter Unit heaters were found inoperable due to a temperature switch being out of calibration. The "B" Standby Filter Unit was declared inoperable and a 7-day LCO commenced. The system was returned to service at 2125 hours ending the LCO.
- 01/22/85 At 1310 hours, the Post-Accident Sampling Station was returned to service ending the 7-day LCO.
- 01/23/85 At 1617 hours, the Reactor Water Cleanup System isolated on a spurious signal from its steam leak detection logic. The event repeated itself at 1958 hours and again at 0853 hours on 01/25/85. In each case the Reactor Water Cleanup Room was inspected and no leakage was found.

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NARRATIVE SUMMARY OF OPERATING EXPERIENCE (Cont)

01/24/85 At 1520 hours, the Control Room received an alarm indicating that the "B" Essential Service Water (ESW) pump was de-energized. The auxiliary operator was immediately dispatched to the essential Switchgear Room to investigate. Workers running cables in the area had inadvertently tripped a breaker supplying power to the "B" ESW pump. The system was restored to service by 1533 hours. At 1540 hours, the Auxiliary Operator discovered that another breaker in the same area controlling the auxiliary system power of the "B" Diesel Generator was also tripped. The breaker was returned to its normal position and all work activities in the area were halted while the event was further investigated and workers were instructed about the caution that must be exercised when working around safety-related equipment. The "B" Emergency Diesel Generator's lube oil temperature was found to be out of the normal band. The "B" Diesel Generator was conservatively declared inoperable and a 7-day LCO commenced. Investigation indicated that the lube oil cooling pump powered from the auxiliary power breaker was de-energized for less than 30 minutes.

01/25/85 At 1250 hours, surveillance testing found that an excess flow check valve on a line from the "B" Recirculation Pump cavity seal would not shut. A 24-hour LCO was temporarily entered until a manual isolation valve on the line was closed.

While performing tests which required lowering the reactor building air temperature, the temperature of the Standby Liquid Control pump suction piping indicated one degree Fahrenheit below the guidelines of Technical Specifications (SBLC tank liquid temperatures remained well above this value). A 24-hour LCO was therefore entered at 2030 hours and an Unusual Event was consequently declared. Portable space heaters were installed near the piping and the temperature was restored to acceptable levels at 2100 hours ending the 24-hour LCO and the Unusual Event.

At 1638 hours, a momentary secondary containment violation occurred when doors between the reactor building and turbine building were inadvertently opened simultaneously due to a failed interlock.

(LER 85-03  
pending)

01/28/85 At 0250 hours, surveillance testing discovered a problem with the HPCI system. The turbine stop valve would not open due to a pilot valve being stuck closed. The HPCI system was declared inoperable and a 7-day LCO commenced.

(LER 85-02  
pending)

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NARRATIVE SUMMARY OF OPERATING EXPERIENCE (Cont)

- 01/29/85 At 1145 hours, operability testing of the HPCI system was completed, ending the 7-day LCO.
- 01/30/85 At 0825 hours a failed interlock solenoid permitted both the reactor building railroad airlock door and the off-gas retention building door to be simultaneously open thus momentarily violating secondary containment integrity.
- (LER 85-03  
pending)
- 01/31/85 At the end of the month the plant was in normal operation at 425 MWe (gross).

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Unit Duane Arnold Energy Ctr  
Date 02-15-85  
Completed by Kenneth 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  
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

Iowa Electric Light and Power Company  
February 15, 1985  
DAEC-85-0143

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

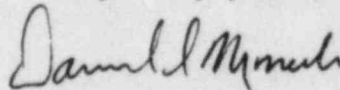
Attn: Document Control Desk

Subject: Duane Arnold Energy Center  
Docket No. 50-331  
Op. License DPR-49  
January, 1985 Monthly Operating Report

Dear Sirs:

Please find enclosed 12 copies of the Duane Arnold Energy Center Monthly Operating Report for January, 1985. 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

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