

OPERATING DATA REPORT

DOCKET NO. 050-0331

DATE 02-15-86

COMPLETED BY Bradford N. Thomas

TELEPHONE 319-851-7309

OPERATING STATUS

Notes

1. Unit Name Duane Arnold Energy Center
2. Reporting Period January, 1986
3. Licensed Thermal Power (Mwt): 1658
4. Nameplate Rating (Gross MWe): 565 (Turbine)
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>744.0</u>	<u>744.0</u>	<u>96432.0</u>
12. Number of Hours Reactor Was Critical	<u>744.0</u>	<u>744.0</u>	<u>68065.9</u>
13. Reactor Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>150.3</u>
14. Hours Generator On-Line	<u>744.0</u>	<u>744.0</u>	<u>66303.5</u>
15. Unit Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
16. Gross Thermal Energy Generated (MWH)	<u>852190</u>	<u>852190</u>	<u>83458424</u>
17. Gross Electrical Energy Generated (MWH)	<u>291212</u>	<u>291212</u>	<u>27947273</u>
18. Net Electrical Energy Generated (MWH)	<u>272830</u>	<u>272830</u>	<u>26169467</u>
19. Unit Service Factor	<u>100.0</u>	<u>100.0</u>	<u>68.8</u>
20. Unit Availability Factor	<u>100.0</u>	<u>100.0</u>	<u>68.8</u>
21. Unit Capacity Factor (Using MDC Net)	<u>71.2</u>	<u>71.2</u>	<u>52.7</u>
22. Unit Capacity Factor (Using DER Net)	<u>68.2</u>	<u>68.2</u>	<u>50.4</u>
23. Unit Forced Outage Rate	<u>0</u>	<u>0</u>	<u>15.8</u>
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):			

An approximately one and one-half week outage to perform annual surveillance tests and inspections

scheduled for mid-March 1986.

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

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AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 050-0331

UNIT Duane Arnold Energy Center

DATE 02-15-86

COMPLETED BY Bradford N. Thomas

TELEPHONE 319-851-7309

MONTH January, 1986

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	415
2	430
3	442
4	420
5	417
6	420
7	366
8	342
9	350
10	347
11	348
12	346
13	345
14	347
15	345
16	346

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	339
18	257
19	323
20	340
21	341
22	352
23	343
24	346
25	347
26	368
27	426
28	417
29	393
30	372
31	376

INSTRUCTIONS

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

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH January, 1986

Docket No. 050-0331
 Unit Name Duane Arnold Energy Center
 Date 02-15-86
 Completed by Bradford N. Thomas
 Telephone 319-851-7309

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause
1	01/18/86	S	0	H	A	-	AA	XXXX	Power was reduced to approximately 40% to permit a control rod sequence exchange.

1 F: Forced
S: Scheduled

2 Reason:
A-Equipment Failure (Explain)
B-Maintenance or Test
C-Retueling
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 Name Duane Arnold Energy Center

Date 02-15-86

Completed by Bradford N. Thomas

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DATE	SYSTEM	COMPONENT	DESCRIPTION
01/01/86	Diesel Fire Pump	Pump Turbocharger	Replaced turbocharger
01/04/86	Transverse Incore Probe (TIP)	TIP 'C' Ball Valve	Installed additional ball valve 1/04/86 (LER 86-03)
01/14/86	Containment Atmosphere Monitoring System (CAMS)	'B' H ₂ O ₂ Analyzer Sample Pump	Replaced pump motor (LER 86-02)
01/14/86	Core Spray	'B' Water Supply Isolation Valve (BM-ISV-2146)	Repacked valve

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REFUELING INFORMATION

1. Name of facility.
A. Duane Arnold Energy Center
2. Scheduled date for next refueling shutdown.
A. February, 1987
3. Scheduled date for restart following refueling.
A. April, 1987
4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?
A. None currently identified
5. Scheduled date(s) for submitting proposed licensing action and supporting information.
A. None currently identified
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) 696
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

- 01/01/85 The plant was in normal power operation with 415 MWe (net) going out to the grid with power limited to stay within utility fuel burn goals. The plant was in day 2 of a 7 day LCO for repairs to the diesel fire pump.
- 01/03/86 At 1740 hours the diesel fire pump was declared operable and the LCO was terminated after repairs to the turbocharger unit were completed.
- 01/04/86 A new 'C' TIP ball valve was installed further away from containment than the existing valve when the existing valve was determined to be sticking partially open.
(LER 86-03)
- 01/09/86 At 0539 hours a 30 day LCO was entered when the 'A' Main Steam Isolation Valve - Leakage Control System (MSIV-LCS) was determined to be inoperable when the 'A' bleed flow control valve gave an intermediate position signal while in the closed position. A faulty torque switch was replaced and the system was returned to service after successful post-maintenance testing. The LCO was terminated on 1/18/86 at 1722 hours.
- 01/14/86 At 1306 hours the 'B' hydrogen oxygen (H₂O₂) train was declared inoperable when removed from service for replacement of the sample pump and motor. A 24 hour LCO and Unusual Event were entered due to the 'A' train already being inoperable. The LCO and Unusual Event were terminated when the 'B' train was returned to service at 1905 hours.
(LER 86-02)
- 01/15/86 At 1004 hours a 30 day LCO was entered when a reactor coolant conductivity monitor was removed from service to replace a conductivity indicating transmitter gauge. Repairs were made and the system was returned to service at 1440 hours thus ending the LCO.
- At 1556 hours the CO₂ system was declared inoperable due to a leak at the manual/automatic actuating valve. A 14 day LCO was commenced and a firewatch was established. Repairs were made and the LCO was terminated on 01/16/86 at 2027 hours when the system was returned to service.
- At 1631 hours the 'B' core spray was declared inoperable and a 7 day LCO was entered when the 'B' pump suction valve failed to close consistently during surveillance tests. A 24 hour LCO and Unusual Event were entered on 01/16/86 at 1546 hours when apparent high vibration readings on the 'A' core spray pump led to its being declared inoperable. The 'B' suction valve was repacked and was returned to service at 1630 hours thus ending the 24 hour LCO and Unusual Event (see 1/21/86). The 'A' pump was still considered inoperable due to unexplained vibration and the 7 day LCO continued. The 'A' core spray system was kept in its operable lineup until the pump seal was disassembled the following day.
- 01/18/86 At 0120 hours power was reduced to approximately 40% to allow a control rod sequence exchange. At 0230 hours on 01/19/86 a reactor power increase was commenced.

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NARRATIVE SUMMARY OF OPERATING EXPERIENCE (Continued)

01/21/86 At 2244 hours, with the help from pump manufacturer and vibration specialist personnel, it was determined the 'A' core spray pump was operable, thus ending the 7 day LCO. The apparent high vibration readings were determined not to be the result of excessive pump vibration and pump seal and suction pipe disassembly revealed no operability concerns. Therefore, the 'A' core spray system was operable as well on 1/15/86 when the 'B' system was inoperable.

At 0801 hours a 7 day LCO was entered when the 'B' Standby Gas Treatment (SBGT) system was removed from service to perform an annual deluge test. The LCO was terminated when the system was returned to service at 1319 hours.

At 1912 hours a 7 day LCO was entered when the diesel fire pump was secured due to an oil leak. Repairs were made and the pump was returned to service on 01/24/86 at 1627 hours thus ending the LCO.

01/22/86 At 0603 hours the 'A' Standby Filter Unit (SFU) auto-initiated as a result of low inlet air temperature. An inoperable inlet air preheat coil had been covered with plastic to prevent cold air flow into the plenum. Control personnel were not notified that the system was ready to be placed in service and didn't recover the coil with plastic. Cold air passing by the out of service coil caused SFU initiation. The SFU was returned to standby and the preheat coil returned to service the same day.

(LER 86-01)

At 0730 hours the 'A' SBGT was removed from service to perform an annual deluge test. A 7 day LCO was entered. The system was returned to service at 1006 hours thus ending the LCO.

01/31/86 At the end of the month, the plant was operating at 376 MWe (net). As of January 31st, the plant had operated continuously for 192 days.

Iowa Electric Light and Power Company
February 15, 1986
DAEC-86-0120

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

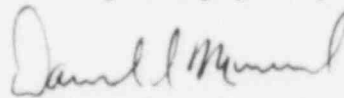
Attn: Document Control Desk

Subject: Duane Arnold Energy Center
Docket No. 50-331
Op. License DPR-49
January, 1986 Monthly Operating Report

Dear Sirs:

Please find enclosed 12 copies of the Duane Arnold Energy Center Monthly Operating Report for January, 1986. 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/BNT/kp*
Enclosures
File A-118d, TE-5

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