

OPERATING DATA REPORT

DOCKET NO. 050-0331
 DATE 10-15-79
 COMPLETED BY J. Van Sickle
 TELEPHONE 319-851-5611

OPERATING STATUS

1. Unit Name: Duane Arnold Energy Center
2. Reporting Period: September, 1979
3. Licensed Thermal Power (MWt): 1,658
- * 4. Nameplate Rating (Gross MWe): 565 (Turbine Rating)
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 Last Report, Give Reasons:

Notes

9. Power Level To Which Restricted, If Any (Net MWe): _____
10. Reasons For Restrictions, If Any: Thermal power limited to approximately 95% due to MCPR operating limit restrictions until Sept. 5, 1979. Thereafter 100% thermal power possible due to fast scram time MCPR easement.

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	720	6,551	40,871
12. Number Of Hours Reactor Was Critical	720	4,828.3	28,441.1
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	720	4,732.3	27,719.3
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	816,096	6,492,288	34,553,928
17. Gross Electrical Energy Generated (MWH)	274,523	2,199,863	11,537,292
18. Net Electrical Energy Generated (MWH)	255,913	2,067,545	10,783,845
19. Unit Service Factor	100%	72.2%	67.8%
20. Unit Availability Factor	100%	72.2%	67.8%
21. Unit Capacity Factor (Using MDC Net)	69.0%	61.3%	51.2%
22. Unit Capacity Factor (Using DER Net)	66.1%	58.7%	49.0%
23. Unit Forced Outage Rate	0%	27.8%	21.9%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
Refueling, February 9, 1979, 12 weeks

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

* Turbine Rating: 565.7 MWe

Generator Rating: 663.5 (MVA) x .90 (Power Factor) = 597 MWe

7910190401

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 050-0331

UNIT Duane Arnold Energy Center

DATE 10-15-79

COMPLETED BY J. Van Sickle

TELEPHONE 319-851-5611

MONTH September, 1979

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	478
2	473
3	482
4	480
5	488
6	498
7	493
8	343
9	446
10	489
11	484
12	484
13	506
14	510
15	509
16	503

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	488
18	254
19	224
20	210
21	222
22	171
23	132
24	171
25	208
26	185
27	203
28	233
29	148
30	149
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
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REPORT MONTH September, 1979

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
9.	790908	S	0	H	4				Power reduction to perform control rod sequence exchange.
10.	790917	S	0	F	4				Power reduced due to lack of demand and to conserve fuel for winter peak loads.
11.	790922	S	0	F	4				Power reduced due to lack of demand and to conserve fuel for winter peak loads.
12.	790923	S	0	F	4				Power reduced due to lack of demand and to conserve fuel for winter peak loads.
13.	790929	S	0	F	4				Power reduced due to lack of demand and to conserve fuel for winter peak loads.

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 I - Same Source

REFUELING INFORMATION

Docket No. 050-0331
Unit Duane Arnold Energy Center
Date 10-15-79
Completed by J. Van Sicket
Telephone 319-851-5611

1. Name of facility.
 - A. Duane Arnold Energy Center
2. Scheduled date for next refueling shutdown.
 - A. February 9, 1980
3. Scheduled date for restart following refueling.
 - A. May 3, 1980
4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?
 - A. Yes. MCPR and MAPLHGR operating limits as derived from transient and accident analyses.
5. Scheduled date(s) for submitting proposed licensing action and supporting information.
 - A. Unknown
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.
 - A. The reload will consist of up to 92 8x8 2 water rod bundles.
7. The number of fuel assemblies (a) in the core and (b) in the spent fuel storage pool.
 - A. a) 368 b) 276
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

- 9-1 At the beginning of the report period the plant was operating at 519 MWe.
- 9-2 Following a power increase in accordance with approved procedures, CPR was found to be 1.289, below the Technical Specification limit of greater than or equal to 1.290.

RO 79-020

- 9-5 A Technical Specification change which changed the MCPR limits was received. The MCPR limit easement was based on control rod fast scram time data. A power increase was begun.
- 9-6 The plant was operating at 531 MWe.
- 9-7 Load was reduced to perform a control rod sequence exchange.
- 9-8 The sequence exchange was completed and a power increase begun.
- 9-11 During surveillance testing control building standby filter unit 1V-SFU-30B did not start when initiated. Redundant standby filter unit 1V-SFU-30A was operable.

RO 79-023

- 9-13 The plant was operating at 540 MWe.
- 9-14 During normal operation operations personnel noted the suppression chamber water level indication on LR 4384 was downscale while redundant indication on LR 4385 was stable.

RO 79-022

- 9-17 A load decrease was begun from 535 MWe. The purpose of the load reduction was to conserve fuel for the winter peak loads and due to lack of system demand.
- 9-18 During surveillance testing the minimum flow valve (MOV 2009) for RHR (LPCI) pumps 1P-229A and 1P-229B would not open.

RO 79-021

- 9-18 During surveillance testing diesel fire pump 1P-49 did not meet the required discharge pressure and flow.

Special Report

9-19 During daily surveillance testing, the minimum flow valve (MOV 2104) for "A" core spray pump, 1P-211A, would not close.

RO Report Pending

9-20 The plant was operating at 195 MWe.

During testing diesel fire pump 1P-49 overheated and lost engine coolant.

Special Report

9-26 During surveillance testing off-gas post treatment rad monitor RM-4101B was found to be indicating out of tolerance.

RO Report Pending

9-28 During surveillance testing suppression chamber water level recorder LR 4385 made a 6% downscale step change.

RO Report Pending

9-30 At the end of the report period the plant was operating at 174 MWe.

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MAJOR SAFETY RELATED MAINTENANCE

DATE	SYSTEM	COMPONENT	DESCRIPTION
9-11-79	Control Building H&V	FT-7320B	Recalibrated flow transmitter
9-14-79	Containment Atmospheric Control	LT-4363	Cleaned transmitter terminals
9-22-79	Neutron Monitoring	RBM "B"	Replaced bypass switch
9-24-79	Control Rod Drive-Elect.	RSCS	Replaced rod select panel
9-25-79	Containment Atmospheric Control	AN-8181A, AN-8181B	Installed new potassium hydroxide solution in cells and recalibrated analyzers
9-27-79	Off-gas Rad Monitoring	RM-4101B	Replaced preregulator
9-28-79	RHR	PS-1917B	Replaced pressure switch
9-28-79	Standby Diesel Generators	LIS-3201	Calibrated indicator