

# OPERATING DATA REPORT

DOCKET NO. 050-0331  
DATE 1-15-79  
COMPLETED BY J. Van Sickle  
TELEPHONE 319-851-5611

## OPERATING STATUS

1. Unit Name: Duane Arnold Energy Center
2. Reporting Period: December, 1978
3. Licensed Thermal Power (MWt): 1658
- \* 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:

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	744	8,760	34,320
12. Number Of Hours Reactor Was Critical	0	3,058.8	23,612.8
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	0	2,904.3	22,987
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	0	3,956,424	28,061,640
17. Gross Electrical Energy Generated (MWH)	0	1,307,325	9,337,429
18. Net Electrical Energy Generated (MWH)	0	1,227,561	8,716,300
19. Unit Service Factor	0%	33.2%	67.0%
20. Unit Availability Factor	0%	33.2%	67.0%
21. Unit Capacity Factor (Using MDC Net)	0%	27.2%	49.3%
22. Unit Capacity Factor (Using DER Net)	0%	26.0%	47.2%
23. Unit Forced Outage Rate	100%	62.6%	20.6%
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):			

25. If Shut Down At End Of Report Period, Estimated Date of Startup: January 20, 1979

- \* Turbine Rating: 565.7 MWe  
Generator Rating: 663.5 (MVA) x .90 (Power Factor) = 597 MWe

7901190062

(9/77)

# AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 050-0331

UNIT Duane Arnold Energy  
Center

DATE January 15, 1979

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MONTH December, 1978

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>0</u>
2	<u>0</u>
3	<u>0</u>
4	<u>0</u>
5	<u>0</u>
6	<u>0</u>
7	<u>0</u>
8	<u>0</u>
9	<u>0</u>
10	<u>0</u>
11	<u>0</u>
12	<u>0</u>
13	<u>0</u>
14	<u>0</u>
15	<u>0</u>
16	<u>0</u>

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	<u>0</u>
18	<u>0</u>
19	<u>0</u>
20	<u>0</u>
21	<u>0</u>
22	<u>0</u>
23	<u>0</u>
24	<u>0</u>
25	<u>0</u>
26	<u>0</u>
27	<u>0</u>
28	<u>0</u>
29	<u>0</u>
30	<u>0</u>
31	<u>0</u>

## 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

REPORT MONTH December, 1978

DOCKET NO. 050-0331

UNIT NAME Duane Arnold Energy Center

DATE January 15, 1979

COMPLETED BY J. Van Sickle

TELEPHONE 319-851-5611

No.	Date	Type <sup>1</sup>	Duration (Hours)	Reason <sup>2</sup>	Method of Shutting Down Reactor <sup>3</sup>	Licensee Event Report #	System Code <sup>4</sup>	Component Code <sup>5</sup>	Cause & Corrective Action to Prevent Recurrence
12	780617	F	744	A	3	78-030	CB	PIPEXX	Continuation of previous shutdown to replace recirculation system inlet nozzle safe ends. Repairs completed 12-22-78 and plant restoration now in progress.

<sup>1</sup>  
F: Forced  
S: Scheduled

<sup>2</sup>  
Reason:  
A-Equipment Failure (Explain)  
B-Maintenance of Test  
C-Refueling  
D-Regulatory Restriction  
E-Operator Training & License Examination  
F-Administrative  
G-Operational Error (Explain)  
H-Other (Explain)

<sup>3</sup>  
Method:  
1-Manual  
2-Manual Scram.  
3-Automatic Scram.  
4-Other (Explain)

<sup>4</sup>  
Exhibit G - Instructions  
for Preparation of Data  
Entry Sheets for Licensee  
Event Report (LER) File (NUREG-  
0161)

<sup>5</sup>  
Exhibit I - Same Source

NARRATIVE SUMMARY OF OPERATING EXPERIENCE

At the beginning of the report period the plant was in the cold shutdown condition with all fuel removed from the reactor to facilitate replacement of all eight recirculation system inlet nozzle safe ends.

- 12-3-78 While raising reactor water level with the CRD system, several control rods inserted partially and 23 control rods inserted fully. Damage investigation could not be made immediately due to plant conditions required for the safe end replacement program.
- 12-11-78 A discharge of water from the make-up demineralizer system neutralizing tank began without the tank first being sampled. The discharge was secured and the tank sampled.
- ETSV Report 78-10
- 12-16-78 A flood up of the reactor vessel was begun.
- 12-17-78 Reactor vessel flood up was completed. The control rods inserted on 12-3-78 were examined and no damage was found. All inserted rods were found to be in the verticle position. All inserted control rods were withdrawn to the fully withdrawn position.
- 12-19-78 A reactor vessel drain down was begun.
- 12-22-78 The recirculation system inlet nozzle safe end replacement program was completed. A reactor vessel and cavity flood up was begun.
- 12-25-78 The reactor cavity flood up was completed. Reloading of the reactor core was begun.
- 12-29-78 Control rod 06-15 twisted when inserted due to a fuel support piece being rotated out of proper position.
- 12-30-78 Fuel support piece 06-15 was reseated. Examination of control rod 06-15 revealed some gouges on the side of the blade. The decision was made to replace the control rod.
- 12-31-78 Control rod 06-15 was replaced. Reactor core loading was completed.

MAJOR SAFETY RELATED MAINTENANCE

Docket No. 050-0331  
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DATE	SYSTEM	COMPONENT	DESCRIPTION
12-18-78	River Water Supply	1P-117B	Inspected and rebuilt pump as required
12-19-78	RHR	LIS-4531	Disassembled, cleaned, assembled, calibrated and returned to service
12-19-78	RHR	LIS-4532	Disassembled, cleaned, rebuilt as required, calibrated and returned to service
12-19-78	RHR	LIS-4533	Disassembled, cleaned, rebuilt as required, calibrated and returned to service.
12-21-78	HPCI	MOV 2315	Cleaned and lubricated torque switch
12-23-78	Primary Containment H & V	CV-4308	Cleaned and lubricated valve actuator and pilot regulator
12-24-78	RHR	Snubber SS215	Changed end and checked for lockup and bleed
12-24-78	RHR	MOV 2000	Cleaned and lubricated valve stem
12-24-78	Standby diesel generators	1G-31	Cleaned and lubricated emergency start solenoid
12-24-78	Containment Atmospheric Control	LR-4384C	Replaced recorder power supply
12-27-78	RHR	FI 1971A	Replaced panel meter

REFUELING INFORMATION

Docket No. 050-0331

Unit Duane Arnold Energy  
Center

Date January 15, 1979

Completed by J. Van Sickle

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1. Name of facility.

A. Duane Arnold Energy Center

2. Scheduled date for next refueling shutdown.

A. Unknown. Under review due to present extended outage.

3. Scheduled date for restart following refueling.

A. Unknown. Under review due to present extended outage.

4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?

A. 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 100 8 x 8 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