

OPERATING DATA REPORT

DOCKET NO. 050-0331
 DATE April 14, 1981
 COMPLETED BY J. Van Sickle
 TELEPHONE 319-851-5611

OPERATING STATUS

1. Unit Name: Duane Arnold Energy Center
2. Reporting Period: March, 1981
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	2,160	54,024
12. Number Of Hours Reactor Was Critical	467.9	1,873	39,041.7
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	457.9	1,857.5	38,134.5
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	634,776	2,733,428	48,732,066
17. Gross Electrical Energy Generated (MWH)	215,556	931,165	16,333,852
18. Net Electrical Energy Generated (MWH)	202,606	887,883	15,289,921
19. Unit Service Factor	61.5%	86.0%	70.6%
20. Unit Availability Factor	61.5%	86.0%	70.6%
21. Unit Capacity Factor (Using MDC Net)	52.9%	79.8%	55.0%
22. Unit Capacity Factor (Using DER Net)	50.6%	76.4%	52.6%
23. Unit Forced Outage Rate	4.7%	20.5%	18.3%

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

Refueling, March 21, 1981, 8 weeks

25. If Shut Down At End Of Report Period, Estimated Date of Startup: May 15, 1981

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

18104220627

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 050-0331
 UNIT Duane Arnold Energy Center
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MONTH March, 1981

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>474</u>
2	<u>480</u>
3	<u>478</u>
4	<u>475</u>
5	<u>473</u>
6	<u>474</u>
7	<u>469</u>
8	<u>458</u>
9	<u>468</u>
10	<u>469</u>
11	<u>470</u>
12	<u>466</u>
13	<u>468</u>
14	<u>400</u>
15	<u>150</u>
16	<u>167</u>

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	<u>371</u>
18	<u>413</u>
19	<u>433</u>
20	<u>370</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

DOCKET NO. 050-0331

UNIT NAME Duane Arnold Energy Center

DATE April 14, 1981

COMPLETED BY J. Van Sickle

TELEPHONE 319-851-5611

REPORT MONTH March, 1981

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
4.	810314	S	0	B	4				Power was reduced to perform control rod scram time testing.
5.	810315	F	22.5	H	3				Reactor scram on APRM High Flux during control valve testing.
6.	810321	S	263.6	C	1				Shutdown for refueling and maintenance outage.

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 Cen
Date April 14, 1981
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1. Name of facility.
A. Duane Arnold Energy Center
2. Scheduled date for next refueling shutdown.
A. March 20, 1981
3. Scheduled date for restart following refueling.
A. May 15, 1981
4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?

A. No
5. Scheduled date(s) for submitting proposed licensing action and supporting information.
A. N/A
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. No licensing action is anticipated.
7. The number of fuel assemblies (a) in the core and (b) in the spent fuel storage pool.

A. a) 0 b) 732
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

MAJOR SAFETY RELATED MAINTENANCE

Docket No. 050-0331
Unit Duane Arnold Energy Center
Date April 14, 1981
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DATE	SYSTEM	COMPONENT	DESCRIPTION
3-11-81	Containment Atmospheric Control	AN-8181A	Installed new chemicals.
3-11-81	Containment Atmospheric Control	1K-18A	Replaced pressure switch.
3-16-81	Containment Atmospheric Control	AN-8181A	Installed new chemicals.
3-19-81	Drywell Radiation Monitors	RE-8101B	Replaced detector.
3-26-81	Reactor Protection	PS-4311C	Replaced switch.

NARRATIVE SUMMARY OF OPERATING EXPERIENCE

- 3-1 At the beginning of the report period the plant was operating at 513 MWe. The reactor was in coast down operation with all control rods fully withdrawn.
- 3-10 During surveillance testing, "A" condensate storage tank low level switch LS 5218 was found inoperable. The cause was found to be moisture in the level switch probe leads.

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- 3-14 Power was reduced in order to perform control rod scram time testing.
- 3-15 Scram time testing was completed at 0155 hours and a power increase begun. A reactor scram occurred at 0833 hours due to APRM high flux during turbine control valve testing. The MSIVs were closed at 1207 hours. A reactor startup was begun at 2210 hours.
- 3-16 The reactor was critical at 0241 hours. The MSIVs on A, B, and C main steam lines were opened at 0309 hours. The D steam line MSIVs were left closed due to a dual position indication on the inboard valve. The generator was placed on the line at 0704 hours and a power increase begun.
- 3-18 The plant was operating at 450 MWe.
- 3-20 A power decrease was begun at 2040 hours in preparation for a refueling outage.
- 3-21 The generator was removed from the line at 0022 hours. All control rods were fully inserted by 0837 hours. The reactor was in the cold shutdown condition at 2150 hours.

Prior to shutdown of the "B" recirculation pump, it was found the pump discharge valve, MOV-4628, would not close with the control room hand switch. The cause was attributed to burned contacts at the MOV motor control center.

RO Report 81-012

- 3-24 The drywell head was removed at 0030 hours.
- 3-24 During scheduled leak rate testing, MSIVs 4412, 4413, 4416, 4418, 4419, 4420, and 4421 were found to have seat leakage on the inboard and combined seat and stem leakage on the outboard valves in excess of the 11.5 SCF limit specified in Technical Specifications Section 4.7.A.2.c.3. The problem is under investigation.

RO Report 81-013

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NARRATIVE SUMMARY OF OPERATING EXPERIENCE

- 3-26 The reactor insulation head was removed at 0530 hours. Suppression chamber draining began at 0615 hours.
- 3-27 The reactor vessel head was removed at 0942 hours. Steam dryer removal was begun at 1800 hours.
- 3-28 While attempting to remove the moisture separator from the reactor vessel, the lifting strongback was distorted due to three separator hold-down bolts not being properly positioned.