

OPERATING DATA REPORT

DOCKET NO. 050-0331
DATE 12-15-90
COMPLETED BY Hai Tran
TELEPHONE (319) 851-7491

OPERATING STATUS

1. Unit Name: Duane Arnold Energy Center
2. Reporting Period: November 1990
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): 565
7. Maximum Dependable Capacity (Net MWe): 538
8. If Changes Occur in Capacity Ratings (Items Number 3 through 7) Since the Last Report, Give Reasons: N/A

Notes

9. Power Level to Which Restricted, If Any (Net MWe): M/A
10. Reasons for Restrictions, If Any: N/A

	This Month	Yr-to-Date	Cumulative
11. Hours in Reporting Period	<u>720.0</u>	<u>8016.0</u>	<u>138768.0</u>
12. Number of Hours Reactor Was Critical	<u>720.0</u>	<u>6016.5</u>	<u>99866.0</u>
13. Reactor Reserve Shutdown Hours	<u>.0</u>	<u>.0</u>	<u>192.8</u>
14. Hours Generator On-Line	<u>720.0</u>	<u>5902.4</u>	<u>97110.4</u>
15. Unit Reserve Shutdown Hours	<u>.0</u>	<u>.0</u>	<u>.0</u>
16. Gross Thermal Energy Generated (MWH)	<u>1177411.2</u>	<u>8693563.2</u>	<u>128774398.0</u>
17. Gross Electrical Energy Generated (MWH)	<u>398715.0</u>	<u>2899356.0</u>	<u>43234876.0</u>
18. Net Electrical Energy Generated (MWH)	<u>375868.4</u>	<u>2713154.5</u>	<u>40519284.2</u>
19. Unit Service Factor	<u>100.0</u>	<u>73.6</u>	<u>70.0</u>
20. Unit Availability Factor	<u>100.0</u>	<u>73.6</u>	<u>70.1</u>
21. Unit Capacity Factor (Using MDC Net)	<u>97.0</u>	<u>62.9</u>	<u>56.4</u>
22. Unit Capacity Factor (Using DER Net)	<u>97.0</u>	<u>62.9</u>	<u>54.3</u>
23. Unit Forced Outage Rate	<u>0.0</u>	<u>5.7</u>	<u>13.9</u>
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of each: <u>N/A</u>)			
25. If Shutdown at End of Report Period, Est. Date of Startup: <u>M/A</u>			

(9/77)

9012270077 901215
PDR ADOCK 05000331
R PDR

AVERAGE DAILY UNIT POWER LEVEL

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MONTH November 1990

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

1	<u>517.0</u>
2	<u>515.0</u>
3	<u>526.0</u>
4	<u>510.0</u>
5	<u>532.0</u>
6	<u>525.0</u>
7	<u>530.0</u>
8	<u>529.0</u>
9	<u>524.0</u>
10	<u>528.0</u>
11	<u>509.0</u>
12	<u>530.0</u>
13	<u>529.0</u>
14	<u>522.0</u>
15	<u>516.0</u>

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

16	<u>523.0</u>
17	<u>531.0</u>
18	<u>508.0</u>
19	<u>525.0</u>
20	<u>519.0</u>
21	<u>518.0</u>
22	<u>523.0</u>
23	<u>526.0</u>
24	<u>528.0</u>
25	<u>505.0</u>
26	<u>519.0</u>
27	<u>520.0</u>
28	<u>526.0</u>
29	<u>530.0</u>
30	<u>523.0</u>
31	<u>M/A</u>

REFUELING INFORMATION

DOCKET NO. 50-0331
DATE 12-15-90
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1. Name of facility.
 - a. Duane Arnold Energy Center
2. Scheduled date for next refueling shutdown.
 - a. March 1, 1992
3. Scheduled date for restart following refueling.
 - a. May 1, 1992
4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?

N/A
5. Scheduled date(s) for submitting proposed licensing action and supporting information.

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.

N/A
7. The number of fuel assemblies (a) in the core and (b) in the spent fuel storage pool.
 - a. 368
 - b. 1048
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 - Licensed Capacity or
 - b. 1898 under the presently installed storage rack capacity.
9. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity.
 - a. 2000 - Licensed Capacity or
 - b. 1997 under the presently installed storage rack capacity.

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: November 1990

Docket No.: 050-0331

Unit: Duane Arnold Energy Center

Date: 12-15-90

Completed By: Hai Tran

Telephone: (319) 851-7491

No.	Date	Type(1)	Duration (Hours)	Reason(2)	Method of Shutting (3) Down Reactor	Licensee Event Report #	System Code (4)	Comp. Code (5)	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-Continued
5-Reduced Load
9-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
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DATE	SYSTEM	COMPONENT	DESCRIPTION
11-13-90	Main Generator Stator Cooling System	Pump	Changed the couplings and realigned the pump.
11-19-90	'A' Recirculation MG Set Lube Oil System	Lube Oil Pump	Rebuilt the pump with rebuild kit and realigned the pump and motor.
11-19-90	Reactor Building Main Fan System	Fan	The fan was found to have excessive vibration. The bearing was replaced.
11-20-90	River Water Intake System	Traveling Screen	Control power fuses were blown. The fuses were replaced.
11-28-90	'B' Recirculation MG Set Lube Oil Deluge System	Flow Test Valve	Cleaned stuffingbox and packing gland stud. Replaced packing gland nuts and packing.

NARRATIVE SUMMARY OF OPERATING EXPERIENCE

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11-01-90 At the beginning of the month the plant was operating at 98.6% of rated thermal power delivering 517.0 MWe to the grid. There was one for-information event during the month.

11-13-90 During an internal review of the Duane Arnold Energy Center Radwaste Program, it was discovered a radioactively contaminated Underwater Shearer/Compactor tool contained contamination in excess of the 100 millicurie Duane Arnold Energy Center License limit. This shipment was received from another nuclear facility on January 19, 1990. The cause of this event was the lack of procedural guidance to ensure that the 100 millicurie limit is not exceeded. This event had no effect, nor could it have had an effect under different plant conditions, on the safe operation of the plant. In addition, this event did not impact plant personnel safety as there are administrative procedures in place to ensure shipments are surveyed upon receipt. To ensure that the 100 millicurie license limit is not exceeded in the future, Health Physics receipt inspection procedures have been revised to require that all shipments be verified to be within our license limit. As a follow-up action, the 100 millicurie limit from the license will be investigated and modified if appropriate. This event is being reported for information only.

LER 90-020 (pending)

11-30-90 At the end of the month the plant was operating at 99.1% of rated thermal power delivering 523.0 MWe to the grid.