



OPERATING DATA REPORT

DOCKET NO. 050-0331  
 DATE 01-15-89  
 COMPLETED BY Lonnie Miller  
 TELEPHONE (319) 851-7204

OPERATING STATUS

Notes

1. Unit Name: Duane Arnold Energy Center
2. Reporting Period: December 1988
3. Licensed Thermal Power (MMt): 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
9. Power Level to Which Restricted, If Any (Net MWe): Reactor shutdown for refueling/maintenance.
10. Reasons for Restrictions, If Any: Reactor shutdown for refueling/maintenance.

	This Month	Yr-to-Date	Cumulative
11. Hours in Reporting Period	<u>744.0</u>	<u>8784.0</u>	<u>121992.0</u>
12. Number of Hours Reactor Was Critical	<u>172.5</u>	<u>6609.5</u>	<u>86948.5</u>
13. Reactor Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>192.8</u>
14. Hours Generator On-Line	<u>0.0</u>	<u>6386.2</u>	<u>84641.6</u>
15. Unit Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
16. Gross Thermal Energy Generated (MMH)	<u>0.0</u>	<u>10002352.2</u>	<u>110039668.6</u>
17. Gross Electrical Energy Generated (MMH)	<u>0.0</u>	<u>3372398.0</u>	<u>36932226.0</u>
18. Net Electrical Energy Generated (MMH)	<u>0.0</u>	<u>3177895.3</u>	<u>34623286.9</u>
19. Unit Service Factor	<u>0.0</u>	<u>72.7</u>	<u>69.4</u>
20. Unit Availability Factor	<u>0.0</u>	<u>72.7</u>	<u>69.4</u>
21. Unit Capacity Factor (Using MDC Net)	<u>0.0</u>	<u>67.2</u>	<u>52.8</u>
22. Unit Capacity Factor (Using DER Net)	<u>0.0</u>	<u>67.2</u>	<u>52.8</u>
23. Unit Forced Outage Rate	<u>0.0</u>	<u>1.0</u>	<u>14.4</u>
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of each): <u>Present Refueling Outage started September 29, 1988.</u>			
25. If Shutdown at End of Report Period, Est. Date of Startup: <u>January 10, 1989</u>			

(9/77)

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AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 050-0331  
DATE 01-15-89  
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TELEPHONE (319) 851-7204

MONTH December 1988

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>

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

16	<u>0</u>
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>

REFUELING INFORMATION

DOCKET NO. 050-0331  
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1. Name of facility.
  - a. Duane Arnold Energy Center
2. Scheduled date for next refueling shutdown.
  - a. March, 1990
3. Scheduled date for restart following refueling.
  - a. June, 1990
4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment? No  
  
NRC has issued all necessary amendments.
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. None
7. The number of fuel assemblies (a) in the core and (b) in the spent fuel storage pool.
  - a. 368            b. 944
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. 2000

UNIT SHUTDOWNS AND POWER REDUCTIONS  
 REPORT MONTH: December 1988

Docket No.: 050-0331  
 Unit: Duane Arnold Energy Center  
 Date: 01-15-89  
 Completed By: Lonnie Miller  
 Telephone: (319) 851-7204

No.	Date	Type(I)	Duration (Hours)	Reason(2)	Method of Shutting (3) Down Reactor	Licensee Event Report #	System Code (4)	Comp. Code (5)	Cause
1	12-01-88	S	744.0	C	4	N/A	N/A	N/A	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-Continued  
 5-Reduced Load  
 9-Other (Explain)

4 - Exhibit G-  
 Instructions for  
 Preparation of Data  
 Entry Sheets for  
 Licensee Event Report  
 (LER) File (NUREG-  
 016I)

5 - Exhibit 1-  
 Same Source

MAJOR/SAFETY RELATED MAINTENANCE

Docket No.: 050-0331  
 Unit: Duane Arnold Energy Center  
 Date: 01-15-89  
 Completed By: Lonnie Miller  
 Telephone: (319) 851-7204

DATE	SYSTEM	COMPONENT	DESCRIPTION
12/01/88	Control Rod Drive	Piping	Replaced a number of sections of Control Rod Drive piping.
12/29/88	Turbine Generator	Exciter Bearings	While attempting to balance the turbine generator after an extensive overhaul, high vibration was discovered on the number 9 turbine exciter bearing. The number 9 and 10 bearings were damaged and subsequently replaced.

NARRATIVE SUMMARY OF OPERATING EXPERIENCE

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- 12-01-88 At the beginning of the month the Duane Arnold Energy Center was shutdown for refueling. Two events were reported per 10 CFR 50.72. One of these events has since been determined to be non-reportable per 10 CFR 50.73. The other event is being reviewed with respect to 10 CFR 50.73.
- 12-20-88 During the performance of the RHR logic system functional test and timer calibration, the "A" recirculation pump tripped while testing the "B" side. This in turn caused the LPCI loop select circuit to actuate. No RHR pumps started. The apparent cause of the event is suspected to be personnel error when a change was made to a surveillance test to allow performance with recirculation pumps running. The event is being reviewed with respect to 10 CFR 50.73.
- LER 88-014 (Pending)
- 12-25-88 During the performance of the HPCI operability test the start time of the HPCI turbine did not meet the requirements of the test. It was later determined that the event was not reportable under 10 CFR 50.73 because an error in the test procedure created a situation in which the HPCI turbine was unnecessarily declared inoperable.
- 12-29-88 While rolling the main turbine, high vibrations occurred at the number 9 bearing. The 9 and 10 bearings (Main Generator Exciter) were discovered to have been damaged.
- 12-31-88 At the end of the month the plant continued to be shutdown for maintenance due to the turbine bearing damage.

Iowa Electric Light and Power Company

January 15, 1989  
DAEC-89-0006

Mr. A. Bert Davis  
Regional Administrator  
Region III  
U. S. Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, IL 60137

Subject: Duane Arnold Energy Center  
Docket No: 50-331  
Op. License DPR-49  
December 1988 Monthly Operating Report

Dear Sirs:

Please find enclosed the Duane Arnold Energy Center Monthly Operating Report for December, 1988. 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, Section 6.11.1.c.

Very truly yours,

 1-13-89  
Rick L. Hannen  
Plant Superintendent - Nuclear

RLH/LDM/go  
Enclosures  
File A-118d

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