



Duane Arnold Energy Center
1277 DAEC Road
Palo, IA 52324
Telephone 319 851 7611
Fax 319 851 7611

November 10, 1995
NG-95-3235

Mr. Hubert J. Miller
Regional Administrator
Region II
U.S. Nuclear Regulatory Commission
801 Warrenville Road
Lisle, IL 60532-4351

Subject: Duane Arnold Energy Center
Docket No: 50-331
Operating License DPR-49
October 1995 Monthly Operating Report

Dear Mr. Miller:

Please find enclosed the Duane Arnold Energy Center Monthly Operating Report for October 1995. The report has been prepared in accordance with the guidelines of NUREG-0020 and distribution has been made in accordance with DAEC Technical Specifications, Section 6.11.1.c.

Very truly yours,

Gary Van Middlesworth
Plant Superintendent, Nuclear

GDV/RBW
Enclosures
File A-118d
cc:

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-37
Washington, DC 20555-0001 (Orig.)

Mr. Glenn Kelly
Project Manager
1 Whiteflint North
Mail Stop 13E21
11555 Rockville Pike
Rockville, MD 20852

Document Control Desk
INPO Records Center
700 Galleria Parkway
Atlanta, GA 30339-5957

Mr. Steve Brown
Iowa State Utilities Board
Lucas State Office Building
Des Moines, IA 50319

Mr. Fred Yost
Director, Research Services
Utility Data Institute
1700 K St. NW, Suite 400
Washington, DC 20006

Mr. Dennis Murdock
Central Iowa Power Cooperative
Box 2517
Cedar Rapids, IA 52406

Dr. William A. Jacobs, Jr.
GDS Associates, Inc.
Suite 720
1850 Parkway Place
Marietta, GA 30068-8237

Mr. Dale Arends
Corn Belt Power Cooperative
1300 13th Street North
Humboldt, IA 50548

DOCU

NRC Resident Inspector

Ms. Katy Shea
Morgan, Lewis, Bochius
1800 M St. NW
Washington, DC 20036-5859

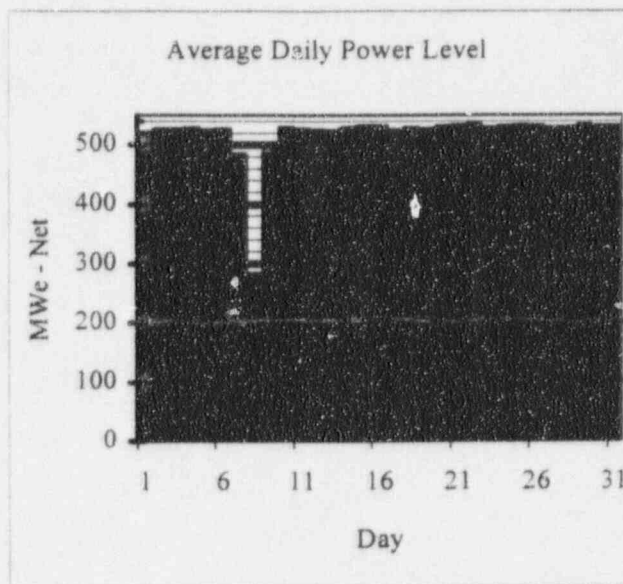
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OPERATING DATA REPORT

DOCKET NO: 50-0331
 DATE: 11/10/95
 Unit: Duane Arnold Energy Center
 COMPLETED BY: Richard Woodward
 TELEPHONE: (319) 851-7318

OPERATING STATUS

1. Unit Name: Duane Arnold Energy Center
2. Reporting Period: October 1995
3. Licensed Thermal Power (MW_{th}): 1658
4. Nameplate Rating (Gross MW_e DER): 565.7 (Turbine)
5. Design Electrical Rating (Net MW_e DER): 538
6. Maximum Dependable Capacity (Gross MW_e MDC): 545
7. Maximum Dependable Capacity (Net MW_e MDC): 515
8. If Changes Occur in Capacity Ratings (Items Number 3 through 7) since the last report, Give Reasons: Not Applicable
9. Power Level to Which Restricted, If Any (Net MW_e): Not Applicable
10. Reasons for Restrictions, If Any: Not Applicable



	October-95	1995	Cummulative
11. Hours in Reporting Period	745.0	7,296.0	181,872.0
12. Number of Hours Reactor Was Critical	745.0	5,881.2	137,061.8
13. Reactor Reserve Shutdown Hours	0.0	0.0	192.8
14. Hours Generator On-Line	745.0	5,790.7	133,649.8
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	1,211,740.0	9,331,724.7	186,860,084.4
17. Gross Electrical Energy Generated (MWH)	410,153.0	3,141,092.0	62,588,978.5
18. Net Electrical Energy Generated (MWH)	387,208.1	2,961,325.9	58,701,370.2
19. Unit Service Factor	100.0%	79.4%	73.5%
20. Unit Availability Factor	100.0%	79.4%	73.5%
21. Unit Capacity Factor (Using MDC Net)	100.9%	78.8%	68.2%
22. Unit Capacity Factor (Using DER Net)	96.6%	75.4%	65.3%
23. Unit Forced Outage Rate	0.0%	1.3%	10.9%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of each): N/A

25. If Shutdown at End of Report Period, Estimated Date of Startup: N/A

AVERAGE DAILY UNIT POWER LEVEL

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MONTH October 1995

Day	Average Daily Power Level (MWe-Net)
1	522.5
2	528.2
3	527.9
4	529.4
5	525.7
6	528.1
7	485.4
8	283.8
9	497.3
10	530.6
11	528.1
12	526.0
13	525.3
14	530.6
15	533.0
16	533.8
17	526.0
18	529.7
19	527.8
20	532.3
21	534.2
22	535.9
23	529.5
24	532.7
25	533.9
26	533.2
27	529.7
28	530.9
29	557.4
30	532.3
31	532.6

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UNIT SHUTDOWNS AND POWER REDUCTIONS
 REPORT MONTH: October 1995

No.	Date	Type (1)	Duration (Hours)	Reason (2)	Method of Shutting Down Reactor (3)	Licensee Event Report #	System Code (4)	Comp. Code (5)	Cause
7	10/7/95	S	0 (12.4 full power equivalent hours)	B	5	N/A	SJ Feedwater System	FCV Flow Control Valve	Reduced power to 50% to replace the 'A' Feedwater Regulating Valve Actuator, perform control rod sequence exchange, and back seat a Turbine Steam Seal Main Steam Supply Isolation Valve found leaking through its packing.

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)

REFUELING INFORMATION

DOCKET NO: 50-0331
 DATE: 7/1/95
 Unit: Duane Arnold Energy Center
 COMPLETED BY: Richard Woodward
 TELEPHONE: (319) 851-7318

1. **Name of facility.**
Duane Arnold Energy Center
2. **Scheduled date for next refueling shutdown.**
Refuel Outage XIV to begin October 10, 1996.
3. **Actual date for restart following refueling.**
November 14, 1996
4. **Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?**
No
5. **Scheduled date(s) for submitting proposed licensing action and supporting information.**
Not applicable
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.**
No
7. **Current and projected fuel assemblies inventory:**

	Number of Fuel Assemblies	Projected date of last refueling that can be discharged
installed in reactor core (following refueling)	368	n/a
previously discharged from core to Spent Fuel Storage Pool (following refueling)	1408	n/a
under present physical capacity of Spent Fuel Storage Pool	2411	2007
under Licensed Capacity of Spent Fuel Storage Pool	3152	2014

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Monthly Operational Overview for October 1995:

The DAEC operated at full thermal power throughout the month except October 7 - 9 to:

- perform a scheduled control rod sequence exchange,
- replace the 'A' Feedwater Regulating Valve Actuator, and
- back seat a Turbine Steam Seal Main Steam Supply Isolation Valve found leaking through its packing,

and on the evening of October 30:

- to reduce reactor recirculation flow to insert control rods in order to maintain thermal limits margin.

Allocation of Production & Losses:	Electrical Output MWe	Capacity Factor % of 565.7 MWe (Design Gross Rating)	Full Power Equivalent Hours
Actual Metered Net Electric Output	519.7	91.9%	684.5
Actual Metered Plant Electric Loads	30.8	5.4%	40.6
Load Following	0.0	0.0%	0.0
Off-Line	0.0	0.0%	0.0
Weather losses, ie., condenser pressure > 2.75 In Hg / Circ Water Temp	1.1	0.2%	1.5
Planned Capacity Losses: sequence exchange, replace the 'A' Feedwater Regulating Valve Actuator, back-seat MO-1169	9.4	1.7%	12.4
Control Rod Drive Exercises: October 30	0.1	0.0%	0.1
Unplanned Capacity Loss:	0.0	0.0%	0.0
Normal Capacity Losses (Avg MWth < 1658)	0.3	0.1%	0.4
Metering Losses (Avg indic MWe - Avg MWHe)	2.4	0.4%	3.1
Efficiency Losses (Weather-Norm-Full-Power-MWe < 565.7)	1.8	0.3%	2.4
Design Gross Electric Output	565.7	100.0%	745.0

At the end of October, the DAEC had operated continuously for 145 consecutive days, its sixth longest operating run.

At 00:47 a.m. on October 20, the 'A' Standby Diesel Generator (SBDG) was declared inoperable when operability testing had to be secured because a High Bearing Temperature alarm was received. Troubleshooting revealed that a malfunctioning temperature controller, incorrectly installed October 10, had caused the inlet fan dampers to fail to open, in turn causing elevated temperatures in the room during the test. Research is currently underway concerning the work planning, equipment calibration, post-maintenance testing, and operability impact of the mis-installed temperature controller. LER #95-11 (pending).

Licensing Action Summary:

Plant Availability:	100.0%	Unplanned Auto Scrams (while/critical) this month:	0
Number of reportable events:	1	Unplanned Auto Scrams (while/critical) last 12 months:	1