



UTILITIES

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

March 11, 1996
NG-96-0624

Duane Arnold Energy Center
3277 DAEC Road
Palo, IA 52324
Telephone 319 851 7611
Fax 319 851 7611

Subject: Duane Arnold Energy Center
Docket No: 50-331
Operating License DPR-49
February 1996 Monthly Operating Report

Dear Mr. Miller:

Please find enclosed the Duane Arnold Energy Center Monthly Operating Report for February 1996. 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 Manager, 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

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

190043

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PDR ADOCK 05000331
R PDR

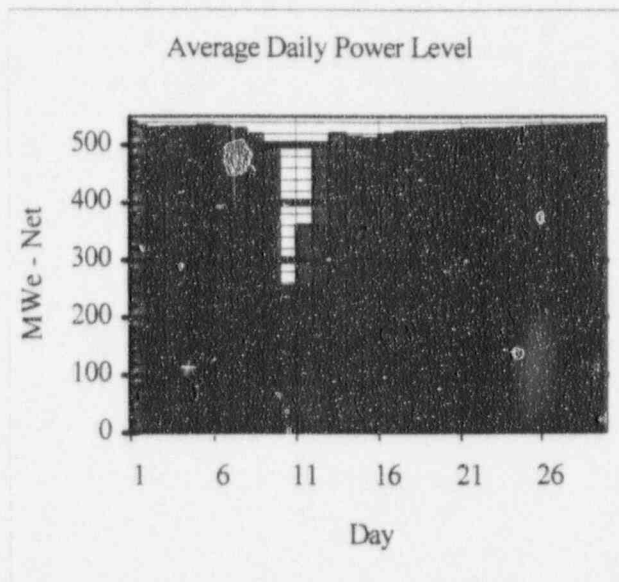
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OPERATING DATA REPORT

DOCKET NO: 50-0331
 DATE: 03/11/96
 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: February 1996
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): 550
7. Maximum Dependable Capacity (Net MW_e MDC): 520
8. If Changes Occur in Capacity Ratings (Items Number 3 through 7) since the last report, Give Reasons: Items #6 and #7 reflect 5 MW_e increased capacity credit resulting from heat rate improvement. The change officially took effect January 1, 1996.
9. Power Level to Which Restricted, If Any (Net MW_e): Not Applicable
10. Reasons for Restrictions, If Any: Not Applicable



		February-96	1996	Cummulative
11.	Hours in Reporting Period	696.0	1,440.0	184,776.0
12.	Number of Hours Reactor Was Critical	696.0	1,440.0	139,965.8
13.	Reactor Reserve Shutdown Hours	0.0	0.0	192.8
14.	Hours Generator On-Line	696.0	1,440.0	136,553.8
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	1,106,221.6	2,282,978.5	191,544,192.9
17.	Gross Electrical Energy Generated (MWH)	376,754.0	779,425.0	64,191,395.6
18.	Net Electrical Energy Generated (MWH)	355,493.7	735,489.0	60,212,503.6
19.	Unit Service Factor	100.0%	100.0%	73.9%
20.	Unit Availability Factor	100.0%	100.0%	73.9%
21.	Unit Capacity Factor (Using MDC Net)	98.2%	98.2%	68.8%
22.	Unit Capacity Factor (Using DER Net)	94.9%	94.9%	65.9%
23.	Unit Forced Outage Rate	0.0%	0.0%	10.7%

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 February 1996

Day	Average Daily Power Level (MWe-Net)
1	534.4
2	530.4
3	532.2
4	531.9
5	534.8
6	532.3
7	528.9
8	519.6
9	492.1
10	254.9
11	361.7
12	502.9
13	521.3
14	513.9
15	511.7
16	519.1
17	523.1
18	523.4
19	525.1
20	526.7
21	529.6
22	528.5
23	529.4
24	531.1
25	533.3
26	534.2
27	534.6
28	535.2
29	536.2

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UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: February 1996

No.	Date	Type (1)	Duration (Hours)	Reason (2)	Method of Shutting Down Reactor (3)	Licensee Event Report #	System Code (4)	Comp. Code (5)	Cause
2	Feb. 7 - 27	S	0 (28.0 full power hours equivalent)	B	5	n/a	TA (Main Turbine System, various)	V, FCV (Valve, Flow Control Valve)	Turbine Control Valve Testing, Control Rod Sequence Exchange, "A" Motor-Generator Set Maintenance, maintain margin to thermal limits

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 I (Same Source)

REFUELING INFORMATION

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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?

Yes

RTS 269, T.S. 3.2, "Plant Containment Systems"

RTS 288, T.S. 2.1, 3.2, "Reactor Water Clean-up Systems Vessel Level Isolation Set-Point Change"

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

RTS 269, submitted December 22, 1995

RTS 288, submitted January 18, 1996

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 February 1996:

The DAEC operated at full thermal power throughout the month except:

- February 7 - 8, to perform scheduled turbine control valve surveillance testing and a control rod sequence exchange, 0.9 full-power-hours lost.
- February 9 - 10, to perform maintenance on the "A" Recirculation Pump Motor-Generator Set. 14.1 full-power-hours lost.
- February 11 - 27, to maintain margin to thermal limits, 14.9 full-power-hours lost.

Total forgone production (including other small planned losses) was the equivalent of 32.0 full-power hours of operation.

At the end of the month the Duane Arnold Energy Center had operated 269 consecutive days, its best-ever continuous operating run.

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	510.8	90.3%	628.4
Actual Metered Plant Electric Loads	30.5	5.4%	37.6
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 < 74.5 °F	-2.1	-0.3%	-2.6
Planned Capacity Losses: Turbine Control Valve Testing , Seq. Exchange, Thermal Limit	22.8	4.0%	28.0
Unplanned Capacity Losses	0.0	0.0%	0.0
Normal Capacity Losses (Avg MWth < 1658)	0.2	0.0%	0.2
Metering Losses (Avg indic MWe - Avg MWHe)	2.7	0.5%	3.4
Efficiency Losses (Weather-Norm-Full-Power-MWe < 565.7)	0.8	0.1%	1.0
Design Gross Electric Output	565.7	100.0%	696.0

There were no Licensee Event Reports.

Licensing Action Summary:

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