Iowa Electric Light and Power Company

March 15, 1994
NG-94-0981

Mr. John E. Martin
Regional Administrator
Region III
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
February 1994 Monthly Operating Report

Dear Mr. Martin:

Please find enclosed the Duane Arnold Energy Center Monthly Operating Report for February 1994. 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,

David Wilson

David Wilson
Plant Superintendent, Nuclear

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File A-118d
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210097

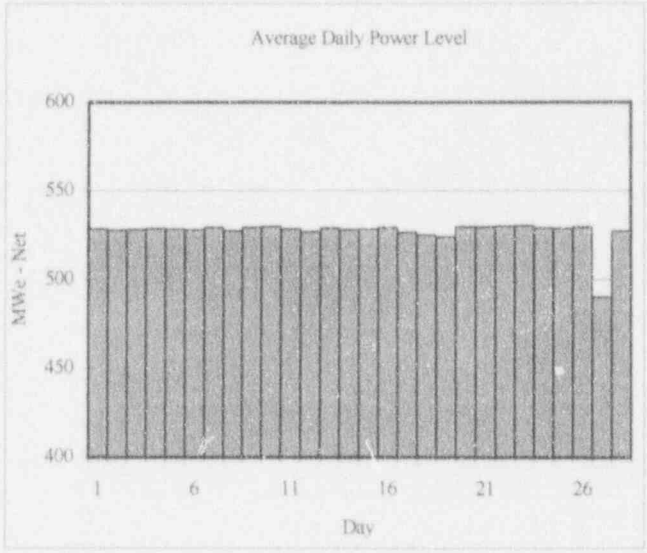
IE24

OPERATING DATA REPORT

DOCKET NO: 50-0331
DATE: 03/15/94
Unit: Duane Arnold Energy Center
COMPLETED BY: Richard Woodyard
TELEPHONE: (319) 851-7318

OPERATING STATUS

1. Unit Name: Duane Arnold Energy Center
2. Reporting Period: February 1994
3. Licensed Thermal Power (MWth): 1658
4. Nameplate Rating (Gross MWe DER): 565.7 (Turbine)
5. Design Electrical Rating (Net MWe DER): 538
6. Maximum Dependable Capacity (Gross MWe MDC): 545
7. Maximum Dependable Capacity (Net MWe MDC): 515
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): Not Applicable
10. Reasons for Restrictions, If Any: Not Applicable



		Feb-94	Year	Cummulative
11.	Hours in Reporting Period	672.0	1,416.0	167,232.0
12.	Number of Hours Reactor Was Critical	672.0	1,416.0	124,360.6
13.	Reactor Reserve Shutdown Hours	0.0	0.0	192.8
14.	Hours Generator On-Line	672.0	1,416.0	121,194.7
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	1,109,658.4	2,334,521.6	166,793,085.8
17.	Gross Electrical Energy Generated (MWH)	375,360.0	790,441.0	55,870,826.5
18.	Net Electrical Energy Generated (MWH)	354,109.5	745,606.5	52,377,269.4
19.	Unit Service Factor	100.0%	100.0%	72.5%
20.	Unit Availability Factor	100.0%	100.0%	72.5%
21.	Unit Capacity Factor (Using MDC Net)	102.3%	102.2%	62.2%
22.	Unit Capacity Factor (Using DER Net)	97.9%	97.9%	59.5%
23.	Unit Forced Outage Rate	0.0%	0.0%	11.8%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of each): None Scheduled
25. If Shutdown at End of Report Period, Est. Date of Startup: (Not Applicable)

AVERAGE DAILY UNIT POWER LEVEL

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MONTH February 1994

Day	Average Daily Power Level (MWe-Net)
1	528.5
2	527.8
3	528.2
4	528.7
5	528.4
6	528.0
7	529.3
8	527.4
9	529.3
10	529.9
11	528.6
12	526.9
13	528.9
14	527.9
15	528.3

Day	Average Daily Power Level (MWe-Net)
16	529.3
17	526.4
18	525.0
19	523.9
20	529.6
21	529.7
22	530.0
23	530.3
24	529.1
25	528.7
26	529.6
27	489.9
28	527.2
29	
30	
31	

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UNIT SHUTDOWNS AND POWER REDUCTIONS
REPORT MONTH: February 1994

(There were no shutdowns or day-to-day power reductions (greater than 20%) in February.)

Date	Type (1)	Duration (Hours)	Reason (2)	Method of Shutting Down Reactor (3)	Licensee Event Report #	System Code (4)	Comp. Code (5)	Cause

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

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TELEPHONE: (319) 851-7318

1. **Name of facility.**

   Duane Arnold Energy Center

2. **Scheduled date for next refueling shutdown.**

   February 23, 1995

3. **Scheduled date for restart following refueling.**

   April 14 - 19, 1995

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
currently installed in reactor core	368	n/a
previously discharged from core to Spent Fuel Storage Pool	1280	n/a
under present physical capacity of Spent Fuel Storage Pool	1898	2001
under planned capacity of Spent Fuel Storage Pool following re-racking (currently under construction)	2411	2007
under Licensed Capacity of Spent Fuel Storage Pool	3152	2014

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Monthly Operational Overview for February 1994:

As of the end of February, the DAEC has continuously operated 123 days. The only significant power reduction taken during the month was to perform a control rod sequence exchange and turbine valve testing on February 27. Forgone production during these downpowers totaled approximately the equivalent of two hours' generation.

Production and Loss Statistics for February:	Electric Output MWe	Capacity Factor % of 565.7 MWe	Equivalent Number of Full-Power Hours
Actual Electric Output	558.6	98.6%	663.6
Weather (gains)/losses	-3.9	-0.5%	-4.6
Turbine Valve testing, Control Rod Sequence Exchange 2/27/94	1.5	0.3%	1.8
Other Capacity MWe Losses (Operating at Average Thermal Power < 1658)	0.8	0.1%	0.9
Efficiency MWe Losses (Avg. Weather Normalized Full-Power-MWe < 565.7)	7.7	1.5%	10.3
Design Electric Output	565.7	100.0%	672.0

On February 10, 1994, during a routine surveillance test performed under extremely cold weather conditions, the "B" Control Building Standby Filter Unit (SFU) was declared inoperable due to the continued tripping of its air intake electric heater. This necessitated entry into a seven day Limiting Condition for Operation (LCO) at 0442. The cause of the tripping was a low heater sheath temperature trip setpoint. A hot water heating coil subsequently froze and ruptured on the "B" SFU, sending water and steam into the downstream filter train and delaying its return to service. At 1517 February 14, 1994 it was determined that a potential common mode failure had existed because the "A" SFU heater also had the same sheath temperature trip setpoint. The inoperability of both SFU trains required entrance into a twelve hour hot shutdown LCO. That LCO was exited when the "A" train trip setpoint was raised and the unit was returned to service at 1814 hours on February 14, 1994. Once repairs to the "B" train were completed, it was also successfully tested and then declared operable. The seven day LCO was exited at 0513 on February 15, 1994. An engineering evaluation will be performed to determine if expected reliability of the SFU system would be significantly enhanced by the elimination or restriction of water interfaces with the system. Additional testing and calibrations will be performed besides the evaluations to complete corrective actions. (LER 94-04 pending)

Licensing Action Summary:

Plant Availability:	100%	Unplanned Auto Scrams (while/Critical) this month:	0
Number of reportable events:	0	Unplanned Auto Scrams (while/Critical) last 12 months:	1