Iowa Electric Light and Power Company

July 15, 1993
NG-93-2855

Mr. John B. Martin
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
Operating License DPR-49
June 1993 Monthly Operating Report

Dear Mr. Martin:

Please find enclosed the Duane Arnold Energy Center Monthly Operating Report for June 1993. 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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DCRC

NRC Resident Inspector

OPERATING DATA REPORT

DOCKET NO: 50-0331
DATE: 07/15/93
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: June 1993
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): 545
7. Maximum Dependable Capacity (Net MWe): 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): 82% (average for month of June)
10. Reasons for Restrictions, If Any: Thermal power capability has decreased slightly more than 0.2% per day since the onset of coast-down April 5, 1993.

Notes

		This Month	Year-to-Date	Cumulative
11.	Hours in Reporting Period	720.0	4,343.0	161,399.0
12.	Number of Hours Reactor Was Critical	720.0	4,218.1	120,199.3
13.	Reactor Reserve Shutdown Hours	0.0	0.0	192.8
14.	Hours Generator On-Line	720.0	4,203.1	117,225.6
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	992,049.2	6,541,987.0	160,625,280.7
17.	Gross Electrical Energy Generated (MWH)	324,746.0	2,176,189.0	53,801,098.5
18.	Net Electrical Energy Generated (MWH)	302,610.0	2,045,379.5	50,442,033.3
19.	Unit Service Factor	100.0%	96.8%	72.6%
20.	Unit Availability Factor	100.0%	96.8%	72.6%
21.	Unit Capacity Factor (Using MDC Net)	81.6%	91.4%	62.1%
22.	Unit Capacity Factor (Using DER Net)	78.1%	87.5%	59.4%
23.	Unit Forced Outage Rate	0.0%	0.0%	12.1%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of each): Refueling, July 29, 1993, 59 days.
25. If Shutdown at End of Report Period, Est. Date of Startup: N/A

AVERAGE DAILY UNIT POWER LEVEL

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MONTH June 1993

Day	Average Daily Power Level (MWe-Net)	Day	Average Daily Power Level (MWe-Net)
1	448.3	16	421.7
2	446.1	17	412.2
3	440.5	18	413.6
4	444.2	19	410.9
5	445.0	20	413.2
6	437.2	21	411.1
7	432.6	22	408.3
8	428.6	23	403.9
9	430.6	24	403.4
10	432.0	25	407.0
11	424.2	26	403.7
12	423.3	27	401.3
13	420.9	28	400.9
14	421.6	29	398.6
15	425.3	30	398.4

REFUELING INFORMATION

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1. **Name of facility.**

   Duane Arnold Energy Center

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

   July 29, 1993

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

   September 26, 1993

4. **Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?**

   Received Amendment #192 , no further change needed

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. **The number of fuel assemblies (a) in the core, (b) in the spent fuel storage pool , (c) new fuel on the re-fuel floor.**

   a. 368
   b. 1152
   c. 128

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.
   c. 3152 requested by RTS#252, submitted March 26, 1993

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. 1998 under the presently installed storage rack capacity.

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UNIT SHUTDOWNS AND POWER REDUCTIONS
REPORT MONTH: June 1993

There were no shutdowns or power reductions in excess of 20% during the month.

No.	Date	Type (1)	Duration (Hours)	Reason (2)	Method of Shutting Down Reactor (3)	Licensee Event Report #	System Code (4)	Comp. Code (5)	Cause
	N/A								

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)

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Monthly Operational Overview for June 1993:

At the beginning of June the DAEC had coasted down to 87% of licensed thermal power. The core has been in "all-rods-out" configuration since April 5. The plant operated at uniformly decreasing power capability throughout the month, briefly reducing electric output by 5' MWHe on June 27 to perform Turbine Valve Surveillances. By the end of June, power level had coasted-down to 79%. The coast-down will continue until the refueling outage, now scheduled to commence July 29.

The following table summarizes June plant operation and categorizes production losses in terms of average MWe, capacity factor, and full power equivalent hours.

	Average MWe	Capacity Factor	Equivalent Full Power Hours
Surveillance losses, control rod movements, etc.	0.1	0.0%	0.1
Seasonal Losses	5.4	1.0%	6.9
Losses due to degraded heat rate	4.9	0.9%	6.2
Other Losses	3.9	0.7%	5.0
Coast-down	100.4	17.7%	127.8
Actual Gross Electric output	451.0	79.7%	574.0
Design Gross Electric Output	565.7	100.0%	720.0

On June 11, 1993, with the plant operating at 85% power, while performing the Emergency Diesel Generator (EDG) operability surveillance, the 'A' EDG tripped approximately three seconds after the initial start signal. The most probable cause was determined to be a partially latched mechanical trip mechanism, although this condition was not able to be recreated during troubleshooting efforts. Corrective actions for this event include procedural enhancements, redundant reset operations, and engine stand improvements to facilitate efficient operation of the reset lever. (LER 93-04)

Licensing Action Summary:

Plant Availability:	100.0%	Unplanned Auto Scrams (w/Critical) this month:	0
Number of reportable events:	1	Unplanned Auto Scrams (w/Critical) last 12 months:	2