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August 11, 2000

NG-00-1388

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
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Subject: Duane Arnold Energy Center
Docket No: 50-331
Operating License: DPR-49
July 2000 Monthly Operating Report
File: A-118d

Please find enclosed the Duane Arnold Energy Center Monthly Operating Report for July 2000. The report has been prepared in accordance with the guidelines of NRC Generic Letter 97-02: Revised Contents Of The Monthly Operating Report, and distribution has been made in accordance with DAEC Technical Specifications, Section 5.6.4.

Very truly yours,

Richard L. Anderson
Plant Manager-Nuclear

RLA/RBW

Enclosures

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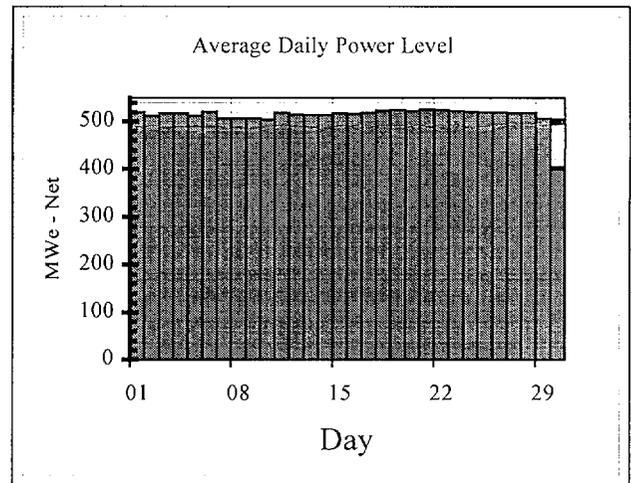
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NRC Resident Inspector
CTS Project - *Licen.*

OPERATING DATA REPORT

DOCKET NO: 50-331
 DATE: 08/11/2000
 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: July 2000
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: Not Applicable
9. Power Level to Which Restricted, If Any (Net MW_e): N/A
10. Reasons for Restrictions, If Any: N/A



	July-00	2000	Cumulative
11. Hours in Reporting Period	744.0	5,111.0	223,511.0
12. Number of Hours Reactor Was Critical	744.0	4,970.6	174,708.0
13. Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14. Hours Generator On-Line	744.0	4,881.4	170,777.2
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	1,223,615.9	8,036,108.0	246,426,473.0
17. Gross Electrical Energy Generated (MWH)	404,166.0	2,701,758.0	82,629,619.6
18. Net Electrical Energy Generated (MWH)	381,421.6	2,552,861.9	77,612,146.0
19. Unit Service Factor	100.0%	95.5%	76.4%
20. Unit Availability Factor	100.0%	95.5%	76.4%
21. Unit Capacity Factor (Using MDC Net)	98.6%	96.1%	73.0%
22. Unit Capacity Factor (Using DER Net)	95.3%	92.8%	69.8%
23. Unit Forced Outage Rate	13.2%	6.6%	9.0%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of each): None
25. If Shutdown at End of Report Period, Estimated Date of Startup: N/A

AVERAGE DAILY UNIT POWER LEVEL

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MONTH July 2000

Day	Average Daily Power Level (MWe-Net)
1	520.0
2	512.5
3	516.7
4	516.9
5	512.1
6	521.1
7	505.9
8	506.6
9	507.4
10	504.3
11	518.6
12	514.2
13	513.7
14	513.5
15	516.6
16	515.6
17	517.9
18	523.8
19	524.2
20	521.6
21	525.7
22	524.5
23	522.2
24	521.0
25	520.0
26	518.9
27	517.4
28	518.1
29	505.9
30	400.5
31	515.0

REFUELING INFORMATION

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1. **Name of facility.** Duane Arnold Energy Center
2. **Scheduled date for next refueling shutdown.** Spring, 2001
3. **Scheduled date for restart following refueling.** Summer, 2001
4. **Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?** Yes, as part of the Extended Power Uprate Project.
5. **Scheduled date(s) for submitting proposed licensing action and supporting information.** October, 2000.
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.** GE 14 fuel design, Maximum Extended Load Line Limit Analysis (MELLA).

7. **Current fuel assemblies inventory**

	Number of Fuel Assemblies	Projected date of last refueling that can be discharged (after allowing margin for maintenance of continuous full-core discharge capability)
Installed into reactor core	368	N/A
Discharged from core to Spent Fuel Storage Pool	1776	N/A
Installed Capacity of Spent Fuel Storage Pool	2411	2001
Licensed Capacity of Spent Fuel Storage Pool (with reracking)	2829	2007
Licensed Capacity of Spent Fuel Storage Pool and Cask Pool (with reracking)	3152	2011

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UNIT SHUTDOWNS AND POWER REDUCTIONS							
REPORT MONTH: July 2000							
No.	Date	Type (1)	Duration (Hours)	Reason (2)	Method of Shutting Down Reactor (3)	Licensee Event Report #	Cause
7	07/29 21:00 - 07/30 18:00	S	5.6 Full-Power- Hours Equivalent	B	5	N/A	Sequence Exchange

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)
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Monthly Operational Overview for July 2000

At the beginning of the month the DAEC had been on-line just two days after the June 28th startup from the forced shutdown following the June 23rd scram. The DAEC operated nearly continuously at full licensed thermal power until a sequence exchange July 29th and 30th. Other brief departures from full-power operation occurred July 1st (Load-line Adjustment), July 8th (weather-related High Condenser Backpressure Alarm), July 10th (Lightning Strike caused loss of Plant Process Computer), and July 30th and 31st (Load-line Adjustments).

Allocation of Production & Losses: July 2000			
	Electrical Output MWe	Capacity Factor % of 571 MWe (Target Output)	Full Power Equivalent Hours (FPHeq)
Capacity Losses:			
Lightning strike (PPC/FWC Out of Service): 07/10 03:56 - 09:00	0.06	0.01%	0.08
Control Rod Adjustment: 07/01 09:00 - 09:45, 07/12 03:15 - 04:00, 07/30 20:30 - 21:00, 07/31 04:00 - 05:15 & 20:00 - 21:00	0.06	0.01%	0.08
High Condenser Back Pressure Vacuum Alarm 07/08 16:30 - 23:30	0.06	0.01%	0.09
Sequence Exchange 07/29 21:00 - 07/30 18:00	4.28	0.75%	5.56
Feedwater Flow Calibration 07/28 21:30 - 22:25	0.00	0.00%	- 0.02
Core Plate dp calibration 07/25 09:00 - 13:00	0.00	0.00%	0.01
Maintain Margin to 1658 MWh Limit	0.06	0.01%	0.11
Efficiency Losses:			
Circ Water System Flow Limitation	1.30	0.23%	1.71
Steam Cycle Isolation Valve Losses: BV-1: 2.3 MWe, MO1099: 0.3 MWe	2.60	0.46%	3.42
Unidentified Losses	2.15	0.37%	2.76
Average Weather Losses:	<u>+17.12</u>	<u>+3.00%</u>	<u>+22.32</u>
Total On-line Losses:	27.69	4.85%	36.12
Off-Line Losses:	0.00	0.00%	0.00
Electric Generation:			
Plant House Loads (while on-line)	30.61	5.36%	39.89
Net Electric Output	+512.64	+89.78%	+667.99
Gross Electric Generation	543.31	95.15%	707.88
Target Electric Output, Total %, Total # of clock-hours	571.00	100.00%	744.00

On July 18th, with the plant at 100% power, two Primary Containment Isolation Valves (PCIVs) unexpectedly closed (as designed) during planned maintenance on the "B" Standby Gas Treatment (SBGT) system. The PCIVs affected were the Containment Nitrogen makeup, and the "B" Recirc Minipurge valves. The event occurred during a fuse replacement, and the annunciation received was "Bldg Vent Shaft Rad Monitor Downscale/Hi". Operators immediately verified the isolation, and the NRC was notified under a 4-hour notification requirement. The "B" SBGT system was later tested, returned to its standby readiness condition, and declared operable. The appropriate LCO was exited later in the day. (LER # 2000-003 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:	2
		Main Steam Safety and Relief Valve Challenges this month:	0