

October 10, 2001

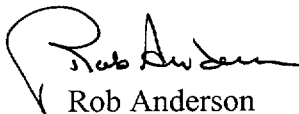
NG-01-1175

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  
September 2001 Monthly Operating Report  
File: A-118d

Please find enclosed the Duane Arnold Energy Center Monthly Operating Report for September 2001. 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,



Rob Anderson  
Plant Manager-Nuclear

RA/RBW

Enclosures

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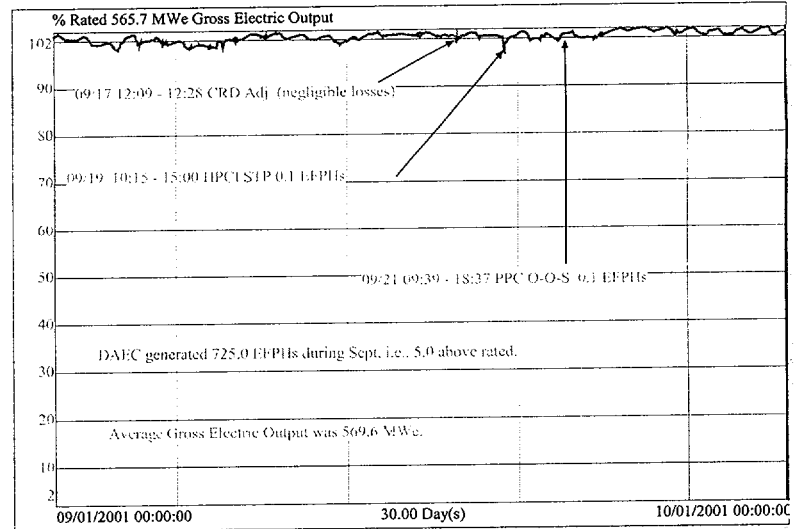
CTS Project

# OPERATING DATA REPORT

DOCKET NO: 50-331  
 DATE: 10/10/2001  
 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: September 2001
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



	Sep-01	2001	Cumulative
11. Hours in Reporting Period	720.0	6,551.0	233,735.0
12. Number of Hours Reactor Was Critical	720.0	5,516.6	183,897.6
13. Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14. Hours Generator On-Line	720.0	5,420.2	179,870.4
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	1,193,005.0	8,633,991.8	261,062,494.5
17. Gross Electrical Energy Generated (MWH)	410,134.0	2,906,390.0	87,550,837.6
18. Net Electrical Energy Generated (MWH)	387,652.7	2,742,113.0	82,257,103.1
19. Unit Service Factor	100.0%	82.7%	77.0%
20. Unit Availability Factor	100.0%	82.7%	77.0%
21. Unit Capacity Factor (Using MDC Net)	103.5%	80.5%	73.8%
22. Unit Capacity Factor (Using DER Net)	100.1%	77.8%	70.7%
23. Unit Forced Outage Rate	0.0%	1.2%	8.6%

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

DOCKET NO: 50-331  
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MONTH September 2001

Day	Average Daily Power Level (MWe-Net)
1	539.4
2	534.9
3	531.3
4	536.5
5	534.2
6	529.4
7	529.8
8	537.4
9	539.6
10	540.1
11	538.1
12	534.6
13	540.2
14	537.9
15	541.4
16	538.5
17	538.0
18	539.4
19	535.5
20	531.9
21	541.1
22	540.9
23	536.9
24	546.0
25	545.0
26	547.0
27	538.9
28	541.1
29	543.1
30	544.1
31	#N/A

## REFUELING INFORMATION

DOCKET NO: 50-331  
 DATE: 10/10/2001  
 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. Spring 2003
3. Scheduled date for restart following refueling. Spring 2003
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. N/A
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. N/A
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	
Discharged from core to Spent Fuel Storage Pool	1912	
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: September 2001

(There were no shutdowns or power reductions greater than 20% during the month.)

No.	Date	Type (1)	Duration (Hours)	Reason (2)	Method of Shutting Down Reactor (3)	Licensee Event Report #	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)
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### Monthly Operational Overview for September 2001

At the beginning of September, the DAEC had operated seventeen days since its most recent startup following the August 12<sup>th</sup> Reactor Feed Pump trip and manual scram.

During September, the DAEC averaged 569.5 MWe (gross), 3.8 MWe in excess of its (nominal) 565.7 MWe rating. Three brief, minor power reductions occurred September 17<sup>th</sup>, 19<sup>th</sup>, and 21<sup>st</sup> to perform, respectively, a CRD (Control Rod) adjustment, a HPCI (High Pressure Coolant Injection) system surveillance, and maintenance on the PPC (Plant Process Computer).

The plant is producing at higher electric output levels since replacement of the high-pressure turbine, moisture-separator-reheater, and circulating water pumps during the April 13 - May 27 refueling outage. A new official rating will be determined pending the results of power-uprate testing. The license amendment for power-uprate is expected in November.

Allocation of Production & Losses: September 2001			
	Electrical Output MWe	Capacity Factor % of 571 MWe (Target Output)	Full Power Equivalent Hours (FPHeq)
<b>Capacity Losses:</b>			
CRD Adj 09/17 12:09 - 12:28	0.00	0.00%	0.00
HPCI Run: 09/19 10:15 - 15:00	0.05	0.01%	0.06
PPC O-O-S: 09/21 09:39 - 18:37	0.02	0.00%	0.03
Maintain Margin to 1658 MWth Limit	0.28	0.05%	0.35
<b>Efficiency Losses:</b>			
(Negative) Unidentified Losses, i.e., thermal performance improvements	- 4.35	- 0.76%	-5.45
<b>Average Weather losses:</b>	5.48	0.96%	6.90
<b>Total On-line Losses:</b>	1.48	0.26%	1.89
<b>Off-Line Losses:</b>	0.00	0.00%	0.00
<b>Electric Generation:</b>			
Plant House Loads (while on-line)	31.12	5.45%	39.21
<b>Net Electric Output</b>	<b>+538.40</b>	<b>+94.29%</b>	<b>678.90</b>
<b>Gross Electric Generation</b>	<b>569.52</b>	<b>99.74%</b>	<b>718.11</b>
<b>Target Electric Output, Total %, Total # of clock-hours</b>	<b>571.00</b>	<b>100.00%</b>	<b>720.00</b>

On September 4<sup>th</sup>, a leaking plug on a HPCI Steam Supply Drain Steam Trap failed and started to fill the HPCI room with steam. Operators isolated the steam supply and started both Emergency Service Water pumps to provide room cooling. HPCI was declared inoperable when the steam pot high-level alarm activated. LER 2001 - 004 (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:	0
		Main Steam Safety and Relief Valve Challenges this month:	0