IES
UTILITIES INC.

September 15, 1994
NG-94-3392

Mr. John B. Martin
Regional Administrator
Region III
U.S. Nuclear Regulatory Commission
801 Warrenville Road
Lisle, IL 60532-4351

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To William Loveless	From Dick Woodward
Co. U.S. NRC	Co. Iowa Electric
Dept.	Phone #
Fax # 301-504-2260	Fax #

Subject: Duane Arnold Energy Center
Docket No: 50-331
Operating License DPR-49
August 1994 Monthly Operating Report

Dear Mr. Martin:

Please find enclosed the Duane Arnold Energy Center Monthly Operating Report for August 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
Plant Superintendent, Nuclear

DLW/RBW/cc
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File A-118d
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DCRC

NRC Resident Inspector

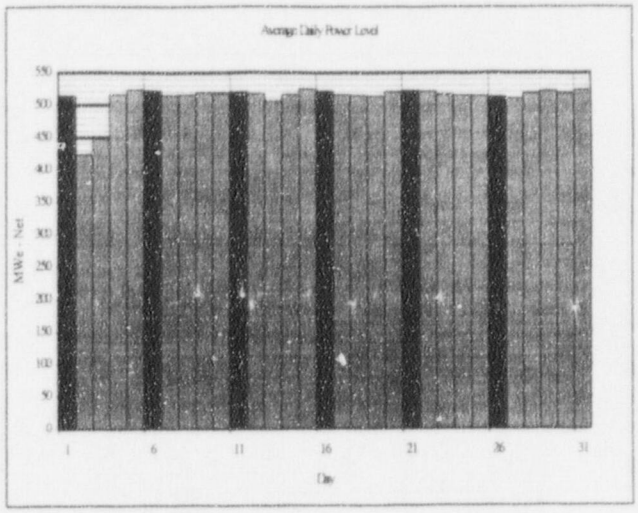
IE24

OPERATING DATA REPORT

DOCKET NO: 50-0331
DATE: 09/15/94
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: August 1994
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): 545
7. Maximum Dependable Capacity (Net MW_e MDC): 515
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): Not Applicable
10. Reasons for Restrictions, If Any: Not Applicable



		August-94	Year	Cummulative
11.	Hours in Reporting Period	744.0	5,831.0	171,647.0
12.	Number of Hours Reactor Was Critical	744.0	5,572.2	128,516.8
13.	Reactor Reserve Shutdown Hours	0.0	0.0	192.8
14.	Hours Generator On-Line	744.0	5,502.9	125,281.6
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	1,219,884.5	8,940,177.9	173,398,742.1
17.	Gross Electrical Energy Generated (MWH)	403,839.0	2,984,879.0	58,065,264.5
18.	Net Electrical Energy Generated (MWH)	380,781.0	2,809,636.4	54,441,299.3
19.	Unit Service Factor	100.0%	94.4%	73.0%
20.	Unit Availability Factor	100.0%	94.4%	73.0%
21.	Unit Capacity Factor (Using MDC Net)	99.4%	93.6%	62.9%
22.	Unit Capacity Factor (Using DER Net)	95.1%	89.6%	60.2%
23.	Unit Forced Outage Rate	0.0%	3.6%	11.6%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of each): Refueling Outage Feb. 24, 1995, 55 days
25. If Shutdown at End of Report Period, Est. Date of Startup: Not Applicable

AVERAGE DAILY UNIT POWER LEVEL

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MONTH August 1994

Day	Average Daily Power Level (MWe-Net)
1	513.6
2	423.9
3	448.2
4	515.3
5	523.0
6	521.7
7	514.7
8	515.2
9	518.6
10	517.6
11	519.8
12	516.4
13	505.4
14	515.3
15	524.2
16	520.7
17	515.3
18	514.1
19	513.4
20	520.2
21	521.8
22	520.7
23	515.7
24	514.0
25	513.7
26	512.3
27	510.3
28	518.5
29	521.6
30	518.0
31	522.8

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 24, 1995

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

   April 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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UNIT SHUTDOWNS AND POWER REDUCTIONS
REPORT MONTH: August 1994

No.	Date	Type (1)	Duration (Hours)	Reason (2)	Method of Shutting Down Reactor (3)	Licensee Event Report #	System Code (4)	Comp. Code (5)	Cause
1	8/2	F	21 (to 65% Power)	A	5	N/A	SB Main/Reheat Steam System	PSF Pipe Fittings	Power reduction for repair of steam leak at 1/2" erosion hole on weld between First Stage Moisture Separator Reheater dump valve and pipe that penetrates condenser.

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 August 1994:

The DAEC reduced average thermal power to 65% for fourteen hours on August 2-3 to repair a steam leak and to 85% for four hours on August 13-14 to adjust control rods.

On the morning of the August 13 (before the control rod drive exercises that evening), a resin intrusion from one of the Condensate Filter Demineralizers caused a brief increase in reactor coolant conductivity. Although control rods were at their desired rod pattern during the event, and Reactor Recirculation System flow remained constant, reactor thermal power decreased approximately 15 MWth. The power decrease was attributed to a change in the reactor coolant surface tension which increased void formation in the core. This, in turn, decreased moderator density and resulted in a decrease in local power. Reactor engineers verified that the change in axial power shape actually occurred. Conductivity returned to normal the next morning (August 14). The Filter Demineralizer will be disassembled and inspected.

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	511.8	90.5%	673.2
Actual Metered Plant Electric Loads	31.0	5.5%	40.7
Weather (seasonal losses, condenser pressure greater than design)	7.5	1.3%	9.8
Weld-repair of CV1061 reducer steam leak, 8/2-3	5.2	0.9%	6.8
Other Capacity MWe Losses (Operating at less than full thermal power)	1.2	0.2%	1.6
Efficiency MWe Losses (thermal conversion @ less than full design output)	9.0	1.6%	11.9
Design Electric Output	565.7	100.0%	744.0

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