OPERATING DATA REPORT

DOCKET NO. 050-0331
DATE June 15, 1981
COMPLETED BY J. Van Sickel
TELEPHONE 319-851-5611

OPERATING STATUS

1. Unit Name: Duane Arnold Energy Center
2. Reporting Period: May, 1981
3. Licensed Thermal Power (MWt): 1658
4. * Nameplate Rating (Gross MWe): 565 (Turbine Rating)
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 Last Report, Give Reasons:

Notes

9. Power Level To Which Restricted, If Any (Net MWe):
10. Reasons For Restrictions, If Any.

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	744	3,623	55,487
12. Number Of Hours Reactor Was Critical	69.1	1,942.1	39,110.8
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	.9	1,858.4	38,135.4
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	2,198	3,735,626	48,734,264
17. Gross Electrical Energy Generated (MWH)	24	931,189	16,333,876
18. Net Electrical Energy Generated (MWH)	13	877,897	15,289,934
19. Unit Service Factor	0	51.3%	68.7%
20. Unit Availability Factor	0	51.3%	68.7%
21. Unit Capacity Factor (Using MDC Net)	0	47.1%	53.5%
22. Unit Capacity Factor (Using DER Net)	0	45.0%	51.2%
23. Unit Forced Outage Rate	95.9%	3.1%	18.4%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):

25. If Shut Down At End Of Report Period, Estimated Date of Startup:

*Turbine Rating: 565.7 MWe
Generator Rating: 663.5 (MVA) x .90 (Power Factor) - 597 MWe

8106220010

POOR ORIGINAL

(9/77)

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 050-0331
UNIT Duane Arnold Energy Center
DATE June 15, 1981
COMPLETED BY J. Van Sickel
TELEPHONE 319-851-5611

MONTH May, 1981

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	0	17	0
2	0	18	0
3	0	19	0
4	0	20	0
5	0	21	0
6	0	22	0
7	0	23	0
8	0	24	0
9	0	25	0
10	0	26	0
11	0	27	0
12	0	28	0
13	0	29	0
14	0	30	0
15	0	31	0
16	0		

INSTRUCTIONS

On this format, list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt.

(9/77)

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 050-0331
UNIT NAME Duane Arnold Energy Ctr.
DATE June 15, 1981
COMPLETED BY J. Van Sickel
TELEPHONE 319-851-5611

REPORT MONTH May, 1981

No.	Date	Type[1]	Duration (Hours)	Reason[2]	Method of Shutting Down Reactor[3]	Licensee Event Report #	System Code[4]	Component Code[5]	Cause & Corrective Action to Prevent Recurrence
6.	810521	S	722	C	1				Unit remained shutdown for a maintenance and refueling outage. Startup was delayed by LLRT problems with MSIVs.
7.	810531	F	21.1	A	1, 3				Unit was removed from the line due to indications of a main steam relief valve pilot assembly passing steam. During the shutdown the reactor scrammed in the IRM range.

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-Other (Explain)

4
Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161)

5
Exhibit I - Same Source

(9/77)

Docket No. 050-0331
Unit Duane Arnold Energy Ce
Date June 15, 1981
Completed by J. Van Sicke
Telephone 319-851-5611

REFUELING INFORMATION

1. Name of facility.
   A. Duane Arnold Energy Center
2. Scheduled date for next refueling shutdown.
   A. Fall, 1982
3. Scheduled date for restart following refueling.
   A. Unknown
4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?
   A. Unknown
5. Scheduled date(s) for submitting proposed licensing action and supporting information.
   A. 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.
   A. Unknown
7. The number of fuel assemblies (a) in the core and (b) in the spent fuel storage pool.
   A. a) 368 b) 448
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
9. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity.
   A. 1998

Docket No. 050-0331
Unit Duane Arnold Energy C
Date June 15, 1981
Completed by J. Van Sickel
Telephone 319-851-561[illegible]

NARRATIVE SUMMARY OF OPERATING EXPERIENCE

5-1 At the beginning of the report period the plant was shutdown for refueling and maintenance with fuel loading in progress.

5-2 Core loading was completed at 1428 hours.

5-3 During a core verification check, one fuel assembly was found misoriented. The fuel assembly was reoriented to the proper position.

The moisture separator was installed in the reactor vessel at 2215 hours.

5-6 The steam dryer was installed in the reactor vessel at 1412 hours.

The reactor vessel head was placed on the vessel at 1532 hours.

5-8 The reactor vessel head studs were tensioned at 0020 hours.

5-12 The drywell head was installed and the retaining studs torqued by 0559 hours.

5-14 All reactor cavity shield plugs were installed by 0415 hours.

5-15 Control Rod Drive (CRD) friction testing was begun.

5-18 CRD friction testing was completed at 0252 hours.

5-19 Shutdown margin testing was begun at 0517 hours. Shutdown margin testing was completed at 0945 hours.

Work was begun to replace CRD 14-39 due to problems which were experienced during friction testing of the drive indicating overtravel.

5-20 CRD 14-39 was changed out and the replacement CRD exercised with satisfactory results.

Plant startup was delayed while maintenance was being performed on three MSIVs which had not yet passed LLRT.

5-25 All MSIVs had passed LLRT by 0030 hours.

5-26 Preparations for plant startup were begun. The reactor was critical at 2234 hours.

5-26 While shutdown for refueling it was determined that the Technical Specification requirements for determining river water supply system pump TDH were not being met. In addition, testing determined the pumps could deliver the required flow, but 3 of 4 pumps could not develop the required head.

RO Report 81-019

Docket No. 050-0331
Unit Duane Arnold Energy C
Date June 15, 1981
Completed by J. Van Sickel
Telephone 319-851-5611

NARRATIVE SUMMARY OF OPERATING EXPERIENCE

5-27 During reactor startup, primary containment was breached when both the inner and outer airlock doors were open simultaneously while an H/P Technician exited the drywell.

RO Report 81-020

The reactor was shutdown due to an indication that the pilot assembly for main steam relief valve PSV-4400 was passing steam. The reactor was in cold shutdown at 2328 hours.

5-28 The pilot assembly on PSV-4400 was replaced and plant startup begun. The reactor was critical at 2115 hours.

5-29 A reactor scram occurred at 1612 hours while testing PSV 4402. When the valve closed a pressure spike caused an APRM trip.

5-30 The reactor was critical at 0308 hours.

5-31 The main generator was placed on the line at 0159 hours for testing. The generator was removed from the line at 0252 hours. The reactor scrammed at 0608 hours from IRMs. The reactor was in cold shutdown at 1025 hours.

Docket No. 050-0331
Unit Quad Cities Energy Center
Date June 15, 1981
Completed by J. Van Sickel
Telephone 319-851-5611

MAJOR SAFETY RELATED MAINTENANCE

DATE	SYSTEM	COMPONENT	DESCRIPTION
5-8-81	Containment Atmospheric Control	V-43-109	Replaced valve
5-12-81	CRD Hydraulic	HCU 06-11, 02-23, 06-19 and 10-39	Replaced cartridge valve
5-13-81	480 Volt MCCs	1B4494	Replaced overload relay, overload relay heaters and contacts in both starters
5-13-81	ESW	SV-2081	Replaced solenoid valve
5-18-81	Off-Gas Rad Monitoring	RM-4104	Replaced detector
5-19-81	480 Volt MCCs	1B34-42	Replaced coil in reverse contactor
5-21-81	Neutron Monitoring	IRM "B"	Replaced high voltage power supply
5-22-81	HPCI	MOV-2316	Replaced handwheel shaft
5-22-81	Nitrogen System	CV-4428, CV-4429	Installed new N_2 Regulator
5-23-81	RHR	MOV-1900	Replaced reverse starter
5-23-81	RHR	CV-2002A	Replaced magnetic switch
5-23-81	RHR	MOV-2003A	Installed new disk
5-25-81	CRD Hydraulic	HCU 06-31	Replaced cartridge valve
5-25-81	CRD Hydraulic	HCU 06-31, 38-19, 14-11, 34-39, 30-15, 30-11, 18-15, 18-39, 10-31, 10-11, 14-15, 34-23, 22-43, 22-03, 26-23, and 38-31	Replaced accumulator seals and "O" rings
5-25-81	CRD Hydraulic	CRD S/N 4022, 3996, 4531 and 3979	Rebuilt CRD
5-26-81	Main Steam Isolations and ADS	CV-4412	Replaced limit switch

Docket No. 050-0331
Unit Duane Arnold Energy Center
Date June 15, 1981
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Telephone 319-851-5611

MAJOR SAFETY RELATED MAINTENANCE

DATE	SYSTEM	COMPONENT	DESCRIPTION
5-27-81	Main Steam Isolation and ADS	PSV 4400, 4401, 4402, 4405, 4406 and 4407	Removed, tested and reinstalled pilot assembly
5-27-81	Main Steam Isolation and ADS	Safety Valve PSV-4403	Valve was removed, tested, overhauled, reset and reinstalled.
5-29-81	Main Steam Isolations and ADS	PSV-4400	Pilot assembly was replaced