OPERATING DATA REPORT

DOCKET NO. 050-0331
DATE 6-14-79
COMPLETED BY J. Van Sickel
TELEPHONE 319-851-5611

OPERATING STATUS

1. Unit Name: Duane Arnold Energy Center
2. Reporting Period: May, 1979
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	37,943
12. Number Of Hours Reactor Was Critical	727.8	1,980.2	25,593
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	715.3	1 891.2	24,875.2
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	931,464	2,491,272	30,552,912
17. Gross Electrical Energy Generated (MWH)	332,659	874,218	10,211,647
18. Net Electrical Energy Generated (MWH)	312,956	822,170	9,538,470
19. Unit Service Factor	96.1%	52.2%	65.6%
20. Unit Availability Factor	96.1%	52.2%	65.6%
** 21. Unit Capacity Factor (Using MDC Net)	81.7%	44.1%	48.8%
22. Unit Capacity Factor (Using DER Net)	78.2%	42.2%	46.7%
23. Unit Forced Outage Rate	3.9%	47.8%	23.7%

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

** The plant discontinued base loaded operation on 5-12-79 and began load following.

(9/77)

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 050-0331
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MONTH May, 1979

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	540	17	467
2	531	18	476
3	519	19	320
4	427	20	377
5	89	21	226
6	130	22	362
7	423	23	459
8	415	24	463
9	489	25	459
10	503	26	391
11	501	27	349
12	478	28	367
13	450	29	440
14	475	30	460
15	485	31	468
16	485		

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

REPORT MONTH May, 1979

DOCKET NO. 050-0331
UNIT NAME Duane Arnold Energy Cent
DATE 6-14-79
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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
4.	790505	F	19.2	A	1		SF	VALVEX	Power was first reduced to perform a control rod sequence exchange. The reactor was then placed in cold shutdown to repair HPCI check valve CV2313.
5.	790519	S	0	A	4		CH	PUMPXX	Power reduction to repair leak on "B" reactor feed pump.
6.	790521	F	9.5	B	3		CB	INSTRU	A reactor scram occurred during testing of recirc system flow instrumentation.
NOTE:	The plant began load following as of 5-12-79.								

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 1 - Same Source

(9/77)

Docket No. 050-0331
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REFUELING INFORMATION

1. Name of facility.

   A. Duane Arnold Energy Center

2. Scheduled date for next refueling shutdown.

   A. February 9, 1980

3. Scheduled date for restart following refueling.

   A. May 3, 1980

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

   A. Yes. MCPR and MAPLHGR operating limits as derived from transient and accident analyses.

5. Scheduled date(s) for submitting proposed licensing action and supporting information.

   A. Unknown.

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. The reload will consist of up to 92 8 x 8 2 water rod bundles.

7. The number of fuel assemblies (a) in the core and (b) in the spent fuel storage pool.

   A. a) 368 b) 276

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

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NARRATIVE SUMMARY OF OPERATING EXPERIENCE

5-1 At the beginning of the report period the plant was operating at 100% thermal power and 579 MWe.

5-3 A load reduction was begun in preparation for a special test of plant load following capability.

5-4 The plant was at 230 MWe and the load following test was begun at 0525 hours. The plant was at 556 MWe at 1000 hours.

A power decrease was begun at 2120 hours in order to perform a control rod sequence exchange.

5-5 The rod sequence exchange was completed at 0300 hours. A load reduction was begun to permit maintenance to be performed on both feed pump lube oil coolers, the "B" MSR drain tank and HPCI check valve CV-2313.

It was determined the HPCI valve could not be repaired on line and the plant was placed in cold shutdown.

5-6 Repairs were completed and plant start up was begun. The reactor was critical at 0456 hours. A HPCI system operability test was done to verify system operability. Water was injected to the reactor vessel to verify CV-2313 was operable. The generator was placed on the line at 1121 hours. A preconditioning ramp was begun at 2040 hours.

5-7 The plant was at 467 MWe. A power decrease was begun to permit control rods to be withdrawn.

5-8 The target rod pattern was achieved and a power increase was begun.

5-10 The plant was at 537 MWe.

5-12 The plant discontinued base loaded operation and began load following.

5-17 Operation Sunshine III was conducted. This was a drill which involved a simulated rupture in an offgas system line. Both site and general emergencies were declared and site response as well as off site agency response were tested.

5-19 Power was reduced in order to repair a leak on the "B" reactor feed pump.

5-21 A reactor scram occurred at 1330 hours during recirculation system flow instrumentation testing. Preparations were immediately begun for plant start up. The reactor was critical at 1918 hours and the generator placed on the line at 2118 hours. At 2132 hours the turbine tripped due to high vibration on #1 and #2 bearings. The generator was again placed on the line at 2312 hours and a load increase begun.

Docket No. 050-0331
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5-22 The target rod pattern was reached at 0520 hours and a preconditioning ramp begun at 1240 hours.

1G-31 standby diesel generator was declared inoperable due to a gross oil leak at TS 3245A.

RO Report pending

5-23 The plant was at 546 MWe at 1430 hours.

5-24 Power was reduced to perform control rod withdrawals. Rod withdrawals were completed and a power increase was begun. The plant was at 559 MWe at 1430 hours.

5-31 The plant was at 481 MWe at 2240 hours.

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MAJOR SAFETY RELATED MAINTENANCE

DATE	SYSTEM	COMPONENT	DESCRIPTION
5-2-79	Reactor non-nuclear instruments	LI 4539 and LI 4540	Recalibrated
5-6-79	HPCI	CV-2313	Replaced pressure seal
5-18-79	Primary Containment H & V	"B" O_2 Analyzer	Recalibrated
5-22-79	RHR service water	1S-90A, 1S-90B	Replaced strainers
5-22-79	ESW	1S-89A, 1S-89B	Cleaned strainers
5-24-79	Standby diesel generators	1G-31	Replaced all exhaust manifold gaskets
5-24-79	Standby diesel generators	1G-31	Cleaned and tightened TS-3245A
5-24-79	Primary Containment	TT4324, TT4325, TR 4386A & B	Replaced capacitor in power supply for TR 4386A, recalibrated TT 4325, TT4324 and TR 4386A & B
5-25-79	Reactor Building exhaust rad monitoring	1C-182B gaseous detector	Repaired bad connection
5-31-79	RHR service water	1S-90A, 1S-90B	Cleaned strainers
5-31-79	ESW	1S-89A, 1S-89B	Cleaned strainers