NRC FORM 195 (2-76)		U.S. NU	CLEAR REGULATORY	COMMISSION	DOCKET NUMB	ев 50 <b>-</b> 331
NRC DISTRIBUTIO	N FOR PAR	T 50 DOCKET	MATERIAL	. 🗨	FILE NUMBER MONTHLY F	EPORT
TO:		FROM: IOWA CEDA	ELECTRIC LIGHT R RAPIDS, IOWA	& POWER CC	DATE OF DOCU	MENT 10-76
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	•		PREPARING	GRAY BOO	S REPORT TO K BY PLANS	& OPERATIONS
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		•		_		
PLANT NAME: DUANE ARNO	LD					161
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SAFETY		FOR ACTION/	INFORMATION	ENV	IRO 2-19-	76 rkb
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# IOWA ELECTRIC LIGHT AND POWER COMPANY

Regulatory Decket File

DUANE ARNOLD ENERGY CENTER P. O. Box 351 Cedar Rapids, Iowa 52406 February 10, 1976 DAEC - 76 - 29

50-331

Director, Office of Inspection and Enforcement U. S. Nuclear Regulatory Commission Washington D.C. 20555

### Subject: Monthly Operating Report

File: A-118d

#### Dear Sirs:

Please find enclosed 10 copies of the Duane Arnold Energy Center Monthly Operating Report for January 1976. The report has been prepared in accordance with the requirements of Regulatory Guide 1.16 and distribution has been made in accordance with Regulatory Guide 10.1. Please note that corrected copies of the November 1975 and December 1975 have been included. The previous copies of the reports contained a mathematical error in the "Hours Generator On Line" figure.

Very truly yours,

G. G. Hunt Chief Engineer Duane Arnold Energy Center

DLW/GGH/mg Enclosures cc: D. Arnold J. Wallace S. Smith L. Root W. Bryant E. Hammond D. Wilson K. Haas Dennis Murdock George Toyne

Directorate of Inspection and Enforcement U. S. Nuclear Regulatory Commission Region III 799 Roosevelt Road Glen Ellyn, Illinois 60137 (1)

Director, Office of Management Informatic and Program Control U. S. Nuclear Regulatory Commission Washington, D.C. 20555 (2)

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U.S. NUCLEAR REGULATO

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JNIT <u>Duane Arnold Ene</u>	ergy Center
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DATE February 3, 1976

COMPLETED BY D. Wilson 319-851-5611

DOCKET NO. 50-331

## OPERATING STATUS

	1.	REPORTING PERIOD: 0001, 760101 THROUGH 24	100 <u>,</u> 760131	• • • • • • • • • • • • • • • • •
•	2.	CURRENTLY AUTHORIZED POWER LEVEL (MWth) 1593 MAX. D	EPENDABLE CA	PACITY
•	3.	LOWEST POWER LEVEL TO WHICH SPECIFICALLY RESTRICTED (	IF ANY) (MWe	-NET):
	4.	430 (approximately) REASONS FOR RESTRICTION (IF ANY): NRC directive as th	e result of	potential
		in-core instrument tube vibration.		Perentat
	· .	THIS REPORTING PERIOD Y	R TO DATE	CUMULATIVE TO DATE
	5.	HOURS REACTOR WAS CRITICAL	744	12,774.75
	6.	REACTOR RESERVE SHUTDOWN HOURS.	0	0
	7.	HOURS GENERATOR ON LINE	744	11,620.2 *
	8.	UNIT RESERVE SHUTDOWN HOURS	0	0
	9.	GROSS THERMAL ENERGY		
		GENERATED (MWH)	961,776	12,925,224
	10.	GROSS ELECTRICAL ENERGY GENERATED (MWH)	325,045	4,301,274
	11.	CENEDATED (MULL) 30 <sup>1</sup> 357 3	30) 257 3	), 00), 507 )
	12	DENERATED (MWH) $30+357+3$		4,004,091.2
	12.	$\frac{100\%}{100\%}$	100%	83%
	14	$\frac{100\%}{100\%}$	<u> </u>	<u> </u>
	15.	UNIT FORCED OUTAGE RATE (4)	0	9%
• _	16.	. SHUTDOWNS SCHEDULED TO BEGIN IN NEXT 6 MONTHS (STATE	TYPE, DATE,	AND DURATION
		OF EACH): Refuel shutdown, February 14, 1976 7 week	S	
	17.	. IF SHUT DOWN AT END OF REPORT PERIOD, ESTIMATED DATE	OF STARTUP:	
	18.	. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION)	REPORT THE F	OLLOWING:
	*	Includes correction of mathematical error		
		for "Hours Generator on-line" for months DAIL LASI of November and December 1976. FORECAST	ACHI	EVED
		INITIAL CRITICALITY	· ·	
	•	INITIAL ELECTRICAL	· · ·	
		POWER GENERATION	e di tangén di sa sa sa	· · · · · · · · · · · · · · · · · · ·
		COMMERCIAL OPERATION	Febru	<u>uary 1975</u>
	(1)	DEACTOR AVALLARILITY FACTOR - HOURS REACTOR WAS CRITIC	CAL V 100	
	(1)	HOURS IN REPORTING PERION	OD X TUU	• • • • • • •
	(2)	HOURS GENERATOR ON LINE	V 100	
· · ·	(~~)	HOURS IN REPORTING PERIO	OD A TOO	
	(3)	UNIT CAPACITY FACTOR $= \frac{\text{NET ELECTRICAL POWER GENIE}{\text{NET ELECTRICAL POWER GENIE}}$	ERATED	
	, - /	MAX. DEPENDABLE CAPACITY	Y (MWe-NET)	X HOURS IN
		REPORTING PERIOD		
	(4)	UNIT FORCED OUTAGE RATE = $\frac{FORCED OUTAGE HOURS}{1000000000000000000000000000000000000$		X 100
	•	HUUKS GENERATOR ON LINE	+FORCED OUTA	GE HOURS

DOCKET NO.	50-331
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UNIT_	Duane Arnold Ener	gy Center
DATE_	February 3, 1976	
COMPLETED BY	D. Wilson 319-85	1-5611

AVERAGE DAILY UNIT POWER LEVEL

MONTH January 1976

AVERAGE DAILY POWER LEVEL

AVERAGE DAILY POWER LEVEL

DAY	(MWe-net)	DAY	(MWe-net)
1	395	17	388
2	374	18	442
3	397	19	418
4	417	20	435
5 .	429	21	429
6	410	22	429
7	422	- 23.	431
8	420	24	337
9	418	- 25	406
10	260	26	437
11	354	27	432
12	421	- 28	428
13	434	- 29	428
14	413	- 30	424
15	420	- 31	422
16	412	- 	

.

(1) REASON A-Equipment Failure (Explain) B-Maint. or Test C-Refueling D-Regulatory Restriction E-Operator Training and License Examination F-Administrative G-Operational Error (Explain) H-Other (Explain) METHOD 1-Manual 2-Manual Scram 3-Automatic Scram

(2)

UNIT SHUTDOWNS

## DOCKET NO. 50-331

UNIT NAME Duane Arnold Energy Center

DATE February 3, 1976

COMPLETED BY D. Wilson 319-851-5611

REPORT MONTH January 1976

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
. 1	760110	F	0	В	NA	Power reduction for recirculation pump MG set brush replacement.
				۲ پر		
		[			l	1

SUMMARY: Reactor operation in the load following mode continued.

IT Duane Arnold Energy Center

DATE December 3, 1975

COMPLETED BY D. Wilson 319-851-5611

DOCKET NO. 50-331

## OPERATING STATUS

	1.	REPORTING PERIOD: 0001, 751101	THROUGH	2400, 751130	
•	2.	CURRENTLY AUTHORIZED POWER LEVEL		DEPENDABLE CA	PACITY
•	3.	LOWEST POWER LEVEL TO WHICH SPEC	CIFICALLY RESTRICTED	(IF ANY) (MWe	-NET):
	4.	REASONS FOR RESTRICTION (IF ANY)	): NRC directive as	the result of	potential
		in-core instrument tube vibratio	THIS REPORTING PERIOD	YR TO DATE	CUMULATIVE TO DATE
·	5. 6. 7. 8.	HOURS REACTOR WAS CRITICAL REACTOR RESERVE SHUTDOWN HOURS HOURS GENERATOR ON LINE UNIT RESERVE SHUTDOWN HOURS	703.75 0 662.75 0	<u>6575.95</u> 0 <u>6269.45</u>	<u>11330.75</u> 0 <u>10101.75</u> 0181.45 0
	9. 10.	GROSS THERMAL ENERGY GENERATED (MWH) GROSS ELECTRICAL ENERGY	776,664	6,595,536	11,138,256
	11.	GENERATED (MWH) NET ELECTRICAL ENERGY GENERATED (MWH)	258,677	2,191,975	<u>-3,696,725</u>
.'	12. 13.	REACTOR AVAILABILITY FACTOR (1). UNIT AVAILABILITY FACTOR (2)	<u></u> 2	80% 77%	<u></u>
	14. 15. 16.	UNIT FORCED OUTAGE RATE (4) SHUTDOWNS SCHEDULED TO BEGIN IN	8% NEXT 6 MONTHS (STATI	10% TYPE, DATE,	AND DURATION
	17. 18.	IF SHUT DOWN AT END OF REPORT PE UNITS IN TEST STATUS (PRIOR TO (	February 16, 1976, ERIOD, ESTIMATED DATE COMMERCIAL OPERATION	OF STARTUP: REPORT THE F	OLLOWING:
•			DATE LAS FORECAST	T DA Achi	ITE EVED
•		INITIAL CRIT INITIAL ELEC POWER GENERA COMMERCIAL C	TICALITY CTRICAL ATION DPERATION	Febr	<u>uary,</u> 1975
	(1)	<b>REACTOR AVAILABILITY FACTOR = <math>\frac{HC}{HC}</math></b>	DURS REACTOR WAS CRIT DURS IN REPORTING PER	RIOD X 100	
÷	(2)	UNIT AVAILABILITY FACTOR $= \frac{HC}{HC}$	DURS GENERATOR ON LIP DURS IN REPORTING PER	NE X 100	
•	(3)	UNIT CAPACITY FACTOR $= \frac{NE}{MA}$	ET ELECTRICAL POWER GE AX. DEPENDABLE CAPACI EPORTING PERIOD	ITY (MWe-NET)	X HOURS IN
•	(4)	UNIT FORCED OUTAGE RATE = $\frac{FC}{HC}$	DRCED OUTAGE HOURS DURS GENERATOR ON LIN	IE+FORCED OUTA	X 10G GE HOURS

MII Duane Arnoru Energy Cence	IT	Duane	Arnold	Energy	Cente
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DATE	January 7,	1976
COMPLETED BY	D. Wilson	319/851-5611
DOCKET NO.	50-331	

## **O**PERATING\_STATUS

•	· · ·	•		•
1.	REPORTING PERIOD: 0001, 75120	1THROUGH_/	2400, 751231	
2	HOURS IN REPORTING PERIOD:	744 El (MWth) 1593 MAX	DEPENDABLE CA	APACITY
£.•	(Mwe-NET) 515			
3.	LOWEST POWER LEVEL TO WHICH SPI 430 (approxi	ECIFICALLY RESTRICTE mately)	D (IF ANY) (MWe	e-NET):
4.	REASONS FOR RESTRICTION (IF AN	Y): NRC directive as	the result of	potential
	in-core instrument tube vibrat:	ion. τμτς		
	• *	REPORTING PERIOD	YR TO DATE	TO DATE
		700	<b>70</b> 75 OF	10020 75
5. 6	REACTOR RESERVE SHUTDOWN HOURS.		1213.95	12030.75
7.	HOURS GENERATOR ON LINE		6964.2	10650.5 10876
8.	UNIT RESERVE SHUTDOWN HOURS	0	0	0
9.	GRUSS THERMAL ENERGY GENERATED (MUH)	825 102	7 120 728	11 063 1018
10.	GROSS ELECTRICAL ENERGY			, <u></u> , <u>_</u>
	GENERATED (MWH)	. 279,504	2,471,479	3,976,229
11.	GENERATED (MWH)	260.870.9	2,298,183,1	3.700.240.1
12.	REACTOR AVAILABILITY FACTOR (1)	). 94%	82%	82%
13.	UNIT AVAILABILITY FACTOR (2)	93%	<u> </u>	79%
14.	UNIT CAPACITY FACTOR (3)	······································	<u> </u>	
16.	SHUTDOWNS SCHEDULED TO BEGIN I	N NEXT 6 MONTHS (STA-	TE TYPE, DATE,	AND DURATION
17	OF EACH): Refuel shutdown, H	February 16, 1976, 7	/ weeks	
17.	UNITS IN TEST STATUS (PRIOR TO	COMMERCIAL OPERATION	N) REPORT THE I	FOLLOWING:
			,	
•	•	DATE LAS	ST D/	
		IURLUAS	· Acin	
	INITIAL CR	ITICALITY		بر این
	INITIAL ELE POWER GENET	ECTRICAL		
	COMMERCIAL	OPERATION	Febr	uary 1975
( 1 )		HOURS REACTOR WAS CRI		
(1)	REACTOR AVAILABILITY FACTOR = $\frac{1}{1}$	HOURS IN REPORTING PE	ERIOD X 100	
(2)	UNIT AVAILABILITY FACTOR = $\frac{1}{2}$	HOURS GENERATOR ON LI	INE X 100	•
(1)		NET ELECTRICAL POWER (	GENERATED	
(3)	UNIT LAPACITY FACTOR $= \frac{1}{N}$	MAX. DEPENDABLE CAPAC	CITY (MWe-NET)	X HOURS IN
	F	REPORTING PERIOD		V 100
.(4)	UNIT FORCED OUTAGE RATE	TURLED UNTAGE HUURS	NE+ENDCED OUTA	
	· · · · · · · · · · · · · · · · · · ·	IOUND GENERATOR ON LI	INETFURGED DUIA	