

50-331

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N. R. C.

FROM:  
Iowa Electric Light & Power Co.  
Cedar Rapids, Iowa  
G. G. Hunt

DATE OF DOCUMENT  
10/7/76

DATE RECEIVED  
10/8/76

LETTER  
 ORIGINAL  
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DESCRIPTION

Ltr w/attached....furnishing Duane Arnold Energy Center Monthly Operating Report for September, 1976.

(4-P)

PLANT NAME:  
Duane Arnold

ENCLOSURE

ACKNOWLEDGED  
DO NOT REMOVE

SAFETY FOR ACTION/INFORMATION ENVIRO 10/8/76 RJL

ASSIGNED AD:		ASSIGNED AD:
<input checked="" type="checkbox"/> BRANCH CHIEF:	Lear	BRANCH CHIEF:
<input checked="" type="checkbox"/> PROJECT MANAGER:	Shea	PROJECT MANAGER:
<input checked="" type="checkbox"/> LIC. ASST.:	Parrish	LIC. ASST.:

INTERNAL DISTRIBUTION

<input checked="" type="checkbox"/> REG FILE	SYSTEMS SAFETY	PLANT SYSTEMS	SITE SAFETY &
<input checked="" type="checkbox"/> NRC PDR	HEINEMAN	TEDESCO	ENVIRO ANALYSIS
I & E	SCHROEDER	BENAROYA	DENTON & MULLER
OELD		LAINAS	
GOSSICK & STAFF	ENGINEERING	IPPOLITO	ENVIRO TECH.
MIPC	MACCARRY	KIRKWOOD	ERNST
CASE	KNIGHT		BALLARD
HANAUER	SIHWEIL	OPERATING REACTORS	SPANGLER
HARLESS	PAWLICKI	STELLO	
PROJECT MANAGEMENT	REACTOR SAFETY	OPERATING TECH.	SITE TECH.
BOYD	ROSS	EISENHUT	GAMMILL
P. COLLINS	NOVAK	SHAO	STAPP
HOUSTON	ROSZTOCZY	BAER	HULMAN
PETERSON	CHECK	BUTLER	SITE ANALYSIS
MELTZ		GRIMES	VOLLMER
HELTEMES	AT & I		BUNCH
SKOVHOLT	SALTZMAN		J. COLLINS ✓
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EXTERNAL DISTRIBUTION

<input checked="" type="checkbox"/> LPDR: Cedar Rapids, Iowa	NAT LAB:	BROOKHAVEN NAT LAB
TIC:	REG. VIE	ULRIKSON (ORNL)
NSIC:	LA PDR	
ASLB:	CONSULTANTS	
ACRS CYS HOLDING/SENT		

CONTROL NUMBER

10210

# IOWA ELECTRIC LIGHT AND POWER COMPANY

DUANE ARNOLD ENERGY CENTER  
P. O. Box 351  
Cedar Rapids, Iowa 52406  
October 7, 1976  
DAEC - 76 - 315

TEL-COM-BR-DAO

1976 OCT 8 PM 1 04

U.S. NUCLEAR REGULATORY  
COMMISSION

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

Subject: Monthly Operating Report

File: A-118d

Dear Sirs:

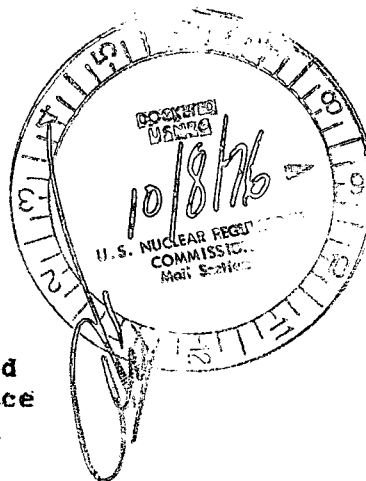
REGULATORY DOCKET FILE COPY

Please find enclosed 10 copies of the Duane Arnold Energy Center Monthly Operating Report for September, 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.

Very truly yours,

*BRC/ark / for*  
G. G. Hunt  
Chief Engineer  
Duane Arnold Energy Center

10210



DLW/GGH/mg

Encl.

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 Information  
and Program Control  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555 (2)

DOCKET NO. 050-331

UNIT Duane Arnold Energy Center

DATE October 7, 1976

COMPLETED BY J. Van Sichel

**AVERAGE DAILY UNIT POWER LEVEL**

MONTH September

**AVERAGE DAILY POWER LEVEL**

DAY	(MWe-net)
1	419
2	470
3	459
4	459
5	450
6	459
7	456
8	386
9	0
10	126
11	158
12	272
13	376
14	453
15	475
16	471

**AVERAGE DAILY POWER LEVEL**

DAY	(MWe-net)
17	467
18	450
19	418
20	471
21	467
22	447
23	77
24	229
25	396
26	437
27	473
28	467
29	472
30	463
31	-

DATE October 7, 1976

COMPLETED BY J. Van Sickle

DOCKET NO. 050-331

**OPERATING STATUS**

1. REPORTING PERIOD: 0001, 760901 THROUGH 2400, 760930  
HOURS IN REPORTING PERIOD: 720
2. CURRENTLY AUTHORIZED POWER LEVEL (MWh) 1593 MAX. DEPENDABLE CAPACITY (MWe-NET) 515
3. LOWEST POWER LEVEL TO WHICH SPECIFICALLY RESTRICTED (IF ANY) (MWe-NET): 490 (approximately)
4. REASONS FOR RESTRICTION (IF ANY): KRC directive as the result of potential in-core instrument tube vibration.

	THIS REPORTING PERIOD	YR TO DATE	CUMULATIVE TO DATE
5. HOURS REACTOR WAS CRITICAL.....	<u>694.2</u>	<u>4844.9</u>	<u>16,875.6</u>
6. REACTOR RESERVE SHUTDOWN HOURS..	<u>-</u>	<u>-</u>	<u>-</u>
7. HOURS GENERATOR ON LINE.....	<u>670.9</u>	<u>4712.7</u>	<u>15,612.9</u>
8. UNIT RESERVE SHUTDOWN HOURS.....	<u>-</u>	<u>-</u>	<u>-</u>
9. GROSS THERMAL ENERGY GENERATED (MMH).....	<u>892,680</u>	<u>5,489,448</u>	<u>17,452,896</u>
10. GROSS ELECTRICAL ENERGY GENERATED (MMH).....	<u>298,116</u>	<u>1,816,498</u>	<u>5,792,727</u>
11. NET ELECTRICAL ENERGY GENERATED (MMH).....	<u>279,349.7</u>	<u>1,690,116.2</u>	<u>5,390,356.</u>
12. REACTOR AVAILABILITY FACTOR (1).....	<u>96%</u>	<u>74%</u>	<u>78%</u>
13. UNIT AVAILABILITY FACTOR (2).....	<u>93%</u>	<u>72%</u>	<u>76%</u>
14. UNIT CAPACITY FACTOR (3).....	<u>75%</u>	<u>50%</u>	<u>50%</u>
15. UNIT FORCED OUTAGE RATE (4).....	<u>7%</u>	<u>4%</u>	<u>7%</u>

16. SHUTDOWNS SCHEDULED TO BEGIN IN NEXT 6 MONTHS (STATE TYPE, DATE, AND DURATION OF EACH): March 15, 1976 - Rb fuel Outage, 1 month

17. IF SHUT DOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP: \_\_\_\_\_

18. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION) REPORT THE FOLLOWING:

	DATE LAST FORECAST	DATE ACHIEVED
INITIAL CRITICALITY	_____	_____
INITIAL ELECTRICAL POWER GENERATION	_____	_____
COMMERCIAL OPERATION	_____	<u>February, 1975</u>

- (1) REACTOR AVAILABILITY FACTOR =  $\frac{\text{HOURS REACTOR WAS CRITICAL}}{\text{HOURS IN REPORTING PERIOD}} \times 100$
- (2) UNIT AVAILABILITY FACTOR =  $\frac{\text{HOURS GENERATOR ON LINE}}{\text{HOURS IN REPORTING PERIOD}} \times 100$
- (3) UNIT CAPACITY FACTOR =  $\frac{\text{NET ELECTRICAL POWER GENERATED}}{\text{MAX. DEPENDABLE CAPACITY (MWe-NET)} \times \text{HOURS IN REPORTING PERIOD}}$
- (4) UNIT FORCED OUTAGE RATE =  $\frac{\text{FORCED OUTAGE HOURS}}{\text{HOURS GENERATOR ON LINE} + \text{FORCED OUTAGE HOURS}} \times 100$

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)

(2) METHOD

1-Manual  
 2-Manual Scram  
 3-Automatic Scram

DOCKET NO. 050-331UNIT NAME Duane Arnold Energy CenterDATE October 7, 1976COMPLETED BY J. Van Sickle

## UNIT SHUTDOWNS

REPORT MONTH September

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
12	760909	F	28.7	A	1	Repair valve packing gland steam leaks.
13	760910	F	11	H	3	Loss of nitrogen pressure to MSIV's due to nitrogen volume depletion.
14	760923	F	9.4	A	1	Repair extraction steam leaks.