

February 25, 1984

DISTRIBUTION
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ORB#2 Reading

DOCKET NO(S). 50-331

SEE THOSE ON THE ATTACHED LIST.

SUBJECT: DUANE ARNOLD ENERGY CENTER
IOWA ELECTRIC LIGHT AND POWER COMPANY

The following documents concerning our review of the subject facility are transmitted for your information.

- Notice of Receipt of Application.
- Draft/Final Environmental Statement, dated _____.
- Notice of Availability of Draft/Final Environmental Statement, dated _____.
- Safety Evaluation Report, or Supplement No. _____, dated _____.
- Notice of Hearing on Application for Construction Permit.
- Notice of Consideration of Issuance of Facility Operating License.
- Application and Safety Analysis Report, Volume _____.
- Amendment No. _____ to Application/SAR dated _____.
- Construction Permit No. CPPR- _____, Amendment No. _____, dated _____.
- Facility Operating License No. _____, Amendment No. _____, dated _____.
- Order Extending Construction Completion Date, dated _____.
- Other (Specify) Forwards Monthly Operating Report for January 1984.

Enclosures:
As stated

Office of Nuclear Reactor Regulation
Division of Licensing
Operating Reactors Branch #2

cc:

OFFICE	DL:ORB#2						
SURNAME	SNOYRIS:ajs						
DATE	02/27/84						

Chief
Division of Ecological Services
Bureau of Sport Fisheries and Wildlife
U. S. Department of the Interior
Washington, D. C. 20240

Joyce M. Wood, Director
Office of Ecology and Conservation
National Oceanic and Atmospheric Administration
U. S. Department of Commerce, Rm 5813 (PP/EC)
14th and Constitution Avenue, N. W.
Washington, D. C. 20230

Dr. William B. Stroube, Jr.
FDA Research Chemist
National Bureau of Standards
Reactor Bldg. 235, Room B108
Washington, D. C. 20034

EPA Region

U. S. Environmental Protection
Agency
Region VII Office
Regional Radiation Representative
324 East 11th Street
Kansas City, Missouri 64106

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8402220006 DOC.DATE: 84/01/31 NOTARIZED: NO DOCKET #
 FACIL:50-331 Duane Arnold Energy Center, Iowa Electric Light & Pow 05000331
 AUTH.NAME AUTHOR AFFILIATION
 KEITH,W. Iowa Electric Light & Power Co.
 MINECK,D.L. Iowa Electric Light & Power Co.
 RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: Monthly operating rept for Jan 1984.W/840215 ltr.

DISTRIBUTION CODE: IE24S COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 2-----
 TITLE: Operating Rept (50 UKT)-Annual/Semiannual/Monthly

NOTES:

	RECIPIENT		COPIES		RECIPIENT	COPIES		
	ID	CODE/NAME	LTR	ENCL		ID	CODE/NAME	LTR
	NRR	URB2 BC 04	7	7				
INTERNAL:	NMSS/FCAF		1	1	NRR/DL/ORAB	10	1	1
	NRR/DSI/FA		1	1	NRR/DSI/CPB		1	1
	NRR/DSI/RAB		1	1	RGN3		1	1
	RM/DDAMI/MIB	13	2	2				
EXTERNAL:	ACRS	11	10	10	LPDR	03	1	1
	NRC PDR	02	1	1	NSIC	05	1	1
	NTIS		1	1				

OPERATING DATA REPORT

DOCKET NO. 050-0331

DATE 02-15-84

COMPLETED BY Wendell Keith

TELEPHONE 319-851-7306

OPERATING STATUS

Notes

1. Unit Name Duane Arnold Energy Center
2. Reporting Period January, 1984
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 the Last Report, Give Reasons:

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	<u>744.0</u>	<u>744.0</u>	<u>78888.0</u>
12. Number of Hours Reactor Was Critical	<u>578.6</u>	<u>578.6</u>	<u>56513.6</u>
13. Reactor Reserve Shutdown Hours	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
14. Hours Generator On-Line	<u>552.9</u>	<u>552.9</u>	<u>54995.6</u>
15. Unit Reserve Shutdown Hours	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
16. Gross Thermal Energy Generated (MWH)	<u>776956.8</u>	<u>776956.8</u>	<u>68525519.2</u>
17. Gross Electrical Energy Generated (MWH)	<u>262427.0</u>	<u>262427.0</u>	<u>22956484.0</u>
18. Net Electrical Energy Generated (MWH)	<u>247481.6</u>	<u>247481.6</u>	<u>21486072.2</u>
19. Unit Service Factor	<u>74.3%</u>	<u>74.3%</u>	<u>69.7%</u>
20. Unit Availability Factor	<u>74.3%</u>	<u>74.3%</u>	<u>69.7%</u>
21. Unit Capacity Factor (Using MDC Net)	<u>64.6%</u>	<u>64.6%</u>	<u>52.9%</u>
22. Unit Capacity Factor (Using DER Net)	<u>61.8%</u>	<u>61.8%</u>	<u>50.6%</u>
23. Unit Forced Outage Rate	<u>25.7%</u>	<u>25.7%</u>	<u>17.4%</u>
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

~~8402220005 840131~~
 PDR ADOCK 05000331
 R PDR

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 050-0331

UNIT Duane Arnold Energy Center

DATE February 15, 1984

COMPLETED BY Wendell Keith

TELEPHONE 319-851-7306

MONTH January, 1984

DAY AVERAGE DAILY POWER LEVEL

(MWe-Net)

DAY AVERAGE DAILY POWER LEVEL

(MWe-Net)

1	526
2	511
3	509
4	510
5	506
6	508
7	164
8	0
9	0
10	8
11	225
12	238
13	244
14	441
15	453
16	497

17	501
18	509
19	511
20	509
21	507
22	490
23	480
24	0
25	0
26	0
27	0
28	69
29	410
30	471
31	511

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.

UNIT SHUTDOWNS AND POWER REDUCTIONS

Docket No. 050-0331
 Unit Name Duane Arnold Energy Center
 Date 02-15-84
 Completed by Wendell Keith
 Telephone 319-851-7306

REPORT MONTH January, 1984

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
1	840107	F	82.5	A, G	3	84-001	SB SJ	RV TBG	"B" Feedwater Recirc valve failed open due to a broken air supply line fitting. 40 sec. later, an unrelated error in an instrument test caused a SRV to open. These events combined to lower vessel level to the HPCI/RCIC initiation set point. The valve was repaired and the test procedure was revised.
2	840123	F	108.6	A, A	3	84-008	IG BO	JS FU	Reactor was scrammed due to loss of power to "A" & "B" APRMs. Also, a blown fuse was found in the LPCI logic power.

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

MAJOR SAFETY RELATED MAINTENANCE

Docket No. 050-0331
Unit Duane Arnold Energy Center
Date February 15, 1984
Completed by Wendell Keith
Telephone 319-851-7306

DATE	SYSTEM	COMPONENT	DESCRIPTION
01-04-84	RHR/Core Spray	1P-70, Fill Pump	Pump & motor bearings went bad. Rebuilt pump. (LER 84-005)
01-06-84	Containment Atmospheric Control	RE8102B, D/W Radiation Monitor	Installed new Gaseous Detector.
01-07-84	Feedwater	SJ-FCV-1611, "B" Recirculation Valve	Broken air line was repaired. (LER 84-001)
01-09-84	Neutron Monitoring	"E" IRM	Reterminated Connector.
01-11-84	Control Building H & V	SV 7301 A & B, SFU Inlet Damper solenoid valves	Removed restricting fitting. (LER 84-004)
01-31-84	RWS	1P-117D, River Water Supply Pump	Adjusted impeller to improve head.

Docket No. 050-0331
Unit Duane Arnold Energy Ctr
Date February 15, 1984
Completed by Wendell Keith
Telephone 319-851-7306

NARRATIVE SUMMARY OF OPERATING EXPERIENCE

01-01-84 Normal plant operation at 438 MWe.

Normal plant operation at 545 MWe at 0637 hours.

01-02-84 At 2144 hours, the RHR/Core Spray fill pump tripped off allowing the RHR pump discharge piping to depressurize below the low alarm set point.

(LER 84-005)

At 2235 hours, control building ventilation isolation, including Standby Filter Units, was initiated by inlet air low temperature. This actuation of an ESF is reportable. Low temperatures contributed to 3 additional SFU actuations during the month.

(LER 84-003)

01-03-84 At 1516 hours, the HPCI steam supply isolation valve was cycled closed due to an error in jumper placement during a routine surveillance test procedure. The jumper was corrected and the valve opened at 1517 hours.

(LER 84-002)

At 1823 hours, all three channels of containment radiation monitor were operable, cancelled 7-day LCO.

01-07-84 At 0808 hours, the reactor was scrammed on low level after the "B" Feedwater Recirculation valve failed open and an unrelated error in the performance of a surveillance test procedure caused a main steam relief valve to open.

(LER 84-001)

01-10-84 At 0908 hours, commenced reactor startup.

At 0954 hours, reactor critical.

At 1836 hours, main generator on-line.

At 2238 hours, both SFUs were actuated by low inlet air temperature. SFU inlet dampers did not respond due to solenoid valve failures. One SFU was promptly restored operable. Commenced 7-day LCO. Solenoid valves were repaired the next day. 7-day LCO cancelled.

(LER 84-004)

Docket No. 050-0331
Unit Duane Arnold Energy Ctr
Date February 15, 1984
Completed by Wendell Keith
Telephone 319-851-7306

NARRATIVE SUMMARY OF OPERATING EXPERIENCE
(cont - Page 2)

- 01-11-84 Normal plant operation at 249 MWe was achieved at 0659 hours.
- 01-14-84 Normal plant operation at 501 MWe was achieved at 0657 hours.
- 01-17-84 At 0256 hours, a "B" ESW auto vent valve stuck open during a surveillance test procedure. Water level in the pumphouse basement rose to 6 feet. The auto-vent was tested as acceptable and an unusual event and LCO were cancelled at 0935 hours. It was determined that this event did not significantly hamper site personnel in the performance of duties necessary for the safe operation of the plant.
- At 1530 hours, "C" RHR pump was declared inoperable because it exceeded ASME head limits. Commenced 30-day LCO. At 2018 hours, "B" side RHR was declared inoperable due to flow indication out of calibration. Commenced 24-hr. LCO. At 0009 hours, on 01-18-84, "B" side RHR was declared operable after flow transmitter calibration. "C" RHR pump was declared operable by virtue of meeting Tech. Spec. head requirements. Unusual Event and all LCOs cancelled. Equipment was operable during this period.
- 01-23-84 At 2247 hours the reactor scrammed automatically due to loss of (ding) power to LPRMs which supply "A" & "B" APRMs. At 2330 hours, a blown fuse was found in the LPCI logic power.
(LER 84-008 Pen
- At 2335 hours, LPCI was declared inoperable. Unusual Event was declared. At 2345 hours, the LPCI fuse was replaced and the Unusual Event was cancelled.
- 01-26-84 Notification was made to NRC of qualification and documentation problem with Hills-McCanna damper actuators in use at DAEC. See Iowa Electric letters NG-84-0436 dated January 27, 1984 and (ding) NG-84-0451 dated January 30, 1984.
(LER 84-006 Pen
- 01-27-84 At 0909 hours, during prestartup activities, experienced a spurious one-half group III isolation.
(LER 84-007 Pen
- At 1717 hours, commenced reactor startup.
- At 1828 hours, reactor critical.

Docket No. 050-0331
Unit Duane Arnold Energy Ctr
Date February 15, 1984
Completed by Wendell Keith
Telephone 319-851-7306

NARRATIVE SUMMARY OF OPERATING EXPERIENCE
(con't - Page 3)

- 01-28-84 At 1125 hours, main generator on-line.
- 01-29-84 At 1633 hours, declared one channel of off-gas radiation monitor, RM 4101A, to be inoperable. Commenced 7-day LCO.
- 01-31-84 At 1124 hours, the RHR/Core Spray pump discharge piping depressurized when RHR test valves did not seat completely during the completion of a surveillance test procedure.

(LER 84-009 Pending)

Normal plant operation at 544 MWe.

Docket No. 050-0331
Unit Duane Arnold Energy Ctr
Date February 15, 1984
Completed by Wendell Keith
Telephone 319-851-7306

REFUELING INFORMATION

1. Name of facility.
A. Duane Arnold Energy Center
2. Scheduled date for next refueling shutdown.
A. Fall, 1984
3. Scheduled date for restart following refueling.
A. Fall 1984
4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?

None currently identified.
5. Scheduled date(s) for submitting proposed licensing action and supporting information.

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.

None
7. The number of fuel assemblies (a) in the core and (b) in the spent fuel storage pool.

A. a) 368 b) 576
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

Iowa Electric Light and Power Company

February 15, 1984

DAEC-83-96

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

Attn: Document Control Desk

Subject: Duane Arnold Energy Center
Docket No. 50-331
Op. License DPR-49
January, 1984 Monthly Operating Report

Dear Sirs:

Please find enclosed 12 copies of the Duane Arnold Energy Center Monthly Operating Report for January, 1984. The report has been prepared in accordance with the guidelines of Regulatory Guide 1.16 and distribution has been made in accordance with DAEC Technical Specifications, Appendix A, Section 6.11.1.c and Regulatory Guide 10.1.

Very truly yours,



Daniel L. Mineck
Plant Superintendent - Nuclear
Duane Arnold Energy Center

DLM/WRK/pv*
Enclosures
File A-118d, TE-5

cc: Director, Office of Inspection
and Enforcement
U. S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137 (1)

Director, Office of Management and
Program Analysis
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555 (1)

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IE24