

OPERATING DATA REPORT

DOCKET NO. 050-0331

DATE 12-15-85

COMPLETED BY Kenneth S. Putnam

TELEPHONE 319-851-7456

OPERATING STATUS

Notes

1. Unit Name Duane Arnold Energy Center
2. Reporting Period November, 1985
3. Licensed Thermal Power (MWT): 1658
4. Nameplate Rating (Gross MWe): 565 (Turbine)
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 | 720.0 | 8016.0 | 94944.0 |
| 12. Number of Hours Reactor Was Critical | 720.0 | 3989.2 | 66577.9 |
| 13. Reactor Reserve Shutdown Hours | 0 | 0 | 150.3 |
| 14. Hours Generator On-Line | 720.0 | 3967.8 | 64815.5 |
| 15. Unit Reserve Shutdown Hours | 0 | 0 | 0 |
| 16. Gross Thermal Energy Generated (MWH) | 807202 | 5205526 | 81665461 |
| 17. Gross Electrical Energy Generated (MWH) | 275451 | 1745991 | 27333345 |
| 18. Net Electrical Energy Generated (MWH) | 257962 | 1636889 | 25593041 |
| 19. Unit Service Factor | 100.0 | 49.5 | 68.3 |
| 20. Unit Availability Factor | 100.0 | 49.5 | 68.3 |
| 21. Unit Capacity Factor (Using MDC Net) | 69.6 | 39.7 | 52.3 |
| 22. Unit Capacity Factor (Using DER Net) | 66.6 | 38.0 | 50.1 |
| 23. Unit Forced Outage Rate | 0 | 0 | 16.1 |
| 24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): | | | |

Surveillance and maintenance outage, March, 1986, one week duration

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

(9/77)

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PDR ADCK 05000331
R PDR

IE24
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AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 050-0331

UNIT Duane Arnold Energy Center

DATE 12-15-85

COMPLETED BY Kenneth S. Putnam

TELEPHONE 319-851-7456

MONTH November, 1985

| DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) |
|-----|--|
| 1 | 348 |
| 2 | 352 |
| 3 | 345 |
| 4 | 313 |
| 5 | 405 |
| 6 | 491 |
| 7 | 495 |
| 8 | 500 |
| 9 | 374 |
| 10 | 360 |
| 11 | 351 |
| 12 | 351 |
| 13 | 352 |
| 14 | 358 |
| 15 | 402 |
| 16 | 368 |

| DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) |
|-----|--|
| 17 | 354 |
| 18 | 339 |
| 19 | 256 |
| 20 | 269 |
| 21 | 267 |
| 22 | 313 |
| 23 | 344 |
| 24 | 345 |
| 25 | 344 |
| 26 | 348 |
| 27 | 345 |
| 28 | 354 |
| 29 | 347 |
| 30 | 350 |
| 31 | - |

INSTRUCTIONS

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

(9/77)

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH November, 1985

Docket No. 050-0331
Unit Name Duane Arnold Energy Center
Date 12-15-85
Completed by Kenneth S. Putnam
Telephone 319-851-7456

| No. | Date | Type ¹ | Duration (Hours) | Reason ² | Method of Shutting Down Reactor ³ | Licensee Event Report # | System Code ⁴ | Component Code ⁵ | Cause |
|-----|----------|-------------------|---------------------|---------------------|--|-------------------------------|--------------------------|-----------------------------|---|
| 8 | 11/09/85 | S | 0 | F | 1 | None | - | - | Power reduction per Load Dispatcher demands and to conserve fuel per administrative schedule |
| 9 | 11/19/85 | S | 0 | B | 1 | None | SJ | P | Power reduction to approxi- mately 50 percent to permit planned maintenance on the 1A Reactor Feedpump |

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)

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Exhibit 1-Same Source

(9/77)

Docket No. 050-0331

Unit Name Duane Arnold Energy Center

Date 12-15-85

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MAJOR/SAFETY RELATED MAINTENANCE

| DATE | SYSTEM | COMPONENT | DESCRIPTION |
|----------|---------------------------------|-----------------------------------|--|
| 11/04/85 | High Pressure Coolant Injection | BJ-ISV-2239 HPCI Steam Supply | Packing was added to reduce leakage. (LER 85-043) |
| 11/07/85 | Reactor Core Isolation Cooling | Electrical Overspeed Trip Monitor | The setpoint of the electrical overspeed trip function was recalibrated. (LER 85-044) |

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REFUELING INFORMATION

1. Name of facility.
A. Duane Arnold Energy Center
2. Scheduled date for next refueling shutdown.
A. 1987
3. Scheduled date for restart following refueling.
A. 1987
4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?
A. None currently identified
5. Scheduled date(s) for submitting proposed licensing action and supporting information.
A. None currently identified
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) 696
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 Name Juane Arnold Energy Center
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NARRATIVE SUMMARY OF OPERATING EXPERIENCE

- 11/01/85 At the beginning of the month the plant was in normal power operation at approximately 65% of rated power. Power levels were restricted to hold the fuel burn within utility goals. The plant was in day 8 of a 90 day LCO on the Post-Accident Sampling System (PASS) and day 10 of a 30 day LCO on the Main Steam Isolation Valve Leakage Control System.
- 11/04/85 At 0020 hours the High Pressure Coolant Injection System (HPCI) was voluntarily removed from service to permit planned maintenance on a steam supply isolation valve (MO-2237). Power levels had been reduced to approximately 40% to permit worker entry into the area.
(LER 85-043)
- At 0711 hours it was noted that core thermal limits were being approached due to Xenon burning out. Between this time and 1057 hours some problems were experienced in maintaining core thermal limits within Technical Specification values. Technical Specification action statements requiring restoring the reactor to within acceptable limits were entered and followed. At 1035 hours a final control rod manipulation was completed. At 1052 hours testing showed all core thermal parameters to be well within acceptable limits.
- At 1157 hours the Emergency Notification System (ENS) indicating light was noted to be off. The NRC was notified of the problem via normal phone lines and the ENS system returned to service by 1336 hours.
- At 1636 hours the 'B' path of the Standby Liquid Control System was declared inoperable, due to a broken instrument tap on the discharge accumulator, commencing a 7 day LCO.
- At 1822 hours maintenance and testing of the HPCI system was completed, ending the 7 day LCO.
- 11/05/85 At 1011 hours the Reactor Core Isolation Cooling System (RCIC) was voluntarily removed from service for maintenance on a steam drain trap bypass valve (CV-2409) and to perform a minor design change to position indication circuitry.
(LER 85-044)
- At 1346 hours the 'A' Main Steam Isolation Valve - Leakage Control Systems was tested satisfactorily, ending a 30 day LCO.
- 11/06/85 At 1230 hours the offgas extended range effluent monitor was removed from service for maintenance. A 72 hour LCO was entered to establish alternate sampling means. At 1418 hours the maintenance activities were completed, the monitor returned to service, and the LCO exited.

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NARRATIVE SUMMARY OF OPERATING EXPERIENCE (Continued)

- 11/07/85 At 0630 hours post-maintenance testing of the RCIC system found the RCIC turbine to trip on overspeed.
(LER 85-044)
- At 1625 hours repair and testing of the 'B' Standby Liquid control discharge accumulator were completed, ending the 7 day LCO.
- 11/08/85 At 1722 hours the RCIC system successfully completed testing, ending the 7 day LCO.
- 11/12/85 At 0510 hours the 'B' Core Spray Subsystem was declared inoperable when the minimum flow valve did not close on flow exceeding 600 gpm as anticipated. A 7 day LCO was entered.
- At 1015 hours, during performance of preventive maintenance, the circuit breaker tripped on the power supply to the Residual Heat Removal Service Water System (RHRSW). A heat exchanger outlet valve (MO-2046) tripped due to a component failure within the breaker. A 7 day LCO was entered.
- At 1616 hours repair and testing of the 'B' Core Spray Subsystem was completed and the 7 day LCO was ended.
- At 1634 hours the 'A' RHRSW system was returned to service ending the 7 day LCO.
- At 1638 hours a roving fire watch was established on Reactor Building penetrations which had been identified as deficient during routine inspection. Personnel were not available to establish continuous fire watches within less than one hour per Technical Specifications. By 1900 hours continuous fire watches were established. Subsequent investigation (on 11/13/85) revealed that all the penetration seals were functional as fire barriers and that the deficiencies noted were largely cosmetic in nature, hence, no fire watches were necessary.
- 11/13/85 At 0723 hours the electric fire pump was removed from service for planned maintenance. A 7 day LCO was entered requiring completion of repairs or submittal of a special report to the Commission. Work was completed at 1937 hours on 11/23/85.
(SPECIAL REPORT 85-046
pending)
- At 1835 hours maintenance and testing of the Post-Accident Sampling System was completed and the 90 day LCO exited.

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NARRATIVE SUMMARY OF OPERATING EXPERIENCE (Continued)

- 11/16/85 At 0805 hours a momentary secondary containment violation occurred when the airlock doors to the main supply fan room were simultaneously open.
(LER 85-045 pending)
- 11/22/85 At 1405 hours a momentary secondary containment violation occurred when railroad doors and the offgas retention building doors were simultaneously open.
(LER 85-45 pending)
- 11/30/85 At the end of the month the plant was in normal operation at 378 MWe (gross). This extended our current days of continued operation to 130 days.

Iowa Electric Light and Power Company
December 15, 1985
DAEC-85-981

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

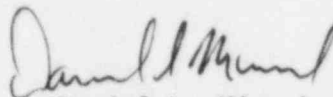
Attn: Document Control Desk

Subject: Duane Arnold Energy Center
Docket No. 50-331
Op. License DPR-49
November, 1985 Monthly Operating Report

Dear Sirs:

Please find enclosed 12 copies of the Duane Arnold Energy Center Monthly Operating Report for November, 1985. 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/KSP/kp*
Enclosures
File A-118d, TE-5

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