

NRC MONTHLY OPERATING REPORT

OPERATING SUMMARY - SEPTEMBER 1981

UNIT 1

Having gone critical on August 30, 1981, Unit 1 began September in a hold at 75% full power to allow the core to reach Xenon equilibrium. At 0329 hours on September 1, 1981, while at the 75% power hold Loop "B" T_h failed high causing the ICS to runback reactor power and increase feedwater flow. Loop "A" T_{AVE} was selected for ICS control and the ICS sensed an immediate reduction in T_{AVE} from 578^oF to 560^oF. This caused the unit to exceed BTU limits and rods to be continuously withdrawn. The reactor tripped on high reactor coolant pressure. The Loop "B" T_h instrumentation was repaired and the reactor went critical at 0612 hours September 1. The unit generator was on line at 0812 hours September 1 and 100% full power was attained by 1630 hours September 2. As in the previous months, fouling of the "A" OTSG and the resulting increase in downcomer water level has required a reduction in unit power. On September 13, 1981, a gradual power reduction was begun to reduce downcomer water level and prevent flooding of the feedwater nozzles. Unit 1 ended the month at 96.19% full power with further power reductions anticipated due to "A" OTSG fouling.

8110210099 811013
PDR ADOCK 05000313
R PDR

OPERATING DATA REPORT

DOCKET NO. 50-313
 DATE 10/12/81
 COMPLETED BY L. S. Bramlett
 TELEPHONE 501-968-2519

OPERATING STATUS

1. Unit Name: Arkansas Nuclear One-Unit 1
2. Reporting Period: September 1-30, 1981
3. Licensed Thermal Power (MWt): 2568
4. Nameplate Rating (Gross MWe): 902.74
5. Design Electrical Rating (Net MWe): 850
6. Maximum Dependable Capacity (Gross MWe): 883
7. Maximum Dependable Capacity (Net MWe): 836
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:

Notes

None

9. Power Level To Which Restricted, If Any (Net MWe): None
10. Reasons For Restrictions, If Any: N/A

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	<u>720.0</u>	<u>6551.0</u>	<u>594660.0</u>
12. Number Of Hours Reactor Was Critical	<u>717.3</u>	<u>4248.2</u>	<u>40038.5</u>
13. Reactor Reserve Shutdown Hours	<u>0.0</u>	<u>149.0</u>	<u>5044.0</u>
14. Hours Generator On-Line	<u>715.2</u>	<u>4129.8</u>	<u>39174.8</u>
15. Unit Reserve Shutdown Hours	<u>0.0</u>	<u>0.0</u>	<u>817.5</u>
16. Gross Thermal Energy Generated (MWH)	<u>1789533.0</u>	<u>10159560.0</u>	<u>94331526.0</u>
17. Gross Electrical Energy Generated (MWH)	<u>600595.0</u>	<u>3380850.0</u>	<u>31079411.0</u>
18. Net Electrical Energy Generated (MWH)	<u>573222.0</u>	<u>3227171.0</u>	<u>29642810.0</u>
19. Unit Service Factor	<u>99.3</u>	<u>63.0</u>	<u>65.9</u>
20. Unit Availability Factor	<u>99.3</u>	<u>63.0</u>	<u>67.3</u>
21. Unit Capacity Factor (Using MDC Net)	<u>95.2</u>	<u>58.9</u>	<u>59.6</u>
22. Unit Capacity Factor (Using DER Net)	<u>93.7</u>	<u>58.0</u>	<u>58.6</u>
23. Unit Forced Outage Rate	<u>0.7</u>	<u>13.1</u>	<u>16.9</u>

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):

None

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

26. Units In Test Status (Prior to Commercial Operation):	Forecast	Achieved
INITIAL CRITICALITY	_____	_____
INITIAL ELECTRICITY	_____	_____
COMMERCIAL OPERATION	_____	_____

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-313

UNIT ANO-1

DATE 10/12/81

COMPLETED BY L. S. Bramlett

TELEPHONE 501-968-2519

MONTH September

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>416</u>
2	<u>761</u>
3	<u>818</u>
4	<u>818</u>
5	<u>817</u>
6	<u>817</u>
7	<u>817</u>
8	<u>817</u>
9	<u>817</u>
10	<u>817</u>
11	<u>816</u>
12	<u>816</u>
13	<u>814</u>
14	<u>807</u>
15	<u>806</u>
16	<u>806</u>

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	<u>813</u>
18	<u>822</u>
19	<u>821</u>
20	<u>817</u>
21	<u>812</u>
22	<u>811</u>
23	<u>809</u>
24	<u>808</u>
25	<u>805</u>
26	<u>801</u>
27	<u>799</u>
28	<u>799</u>
29	<u>796</u>
30	<u>794</u>
31	<u></u>

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.

REFUELING INFORMATION

DATE: September 1981

1. Name of facility. Arkansas Nuclear One - Unit 1
2. Scheduled date for next refueling shutdown. 1/1/83
3. Scheduled date for restart following refueling. 3/15/83
4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?
If answer is yes, what, in general, will these be?
If answer is no, has the reload fuel design and core configuration been reviewed by your Plant Safety Review Committee to determine whether any unreviewed safety questions are associated with the core reload (Ref. 10 CFR Section 50.59)?
Yes. Reload report and associated proposed Technical
Specification changes. Also, the safety analysis of eight
demonstration high burn-up assemblies will be provided.
5. Scheduled date(s) for submitting proposed licensing action and supporting information. 10/1/82
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.
Will reload 72 fresh fuel assemblies and operate for
approximately 16 months. Eight of which will be high
burn-up test assemblies.
7. The number of fuel assemblies (a) in the core and (b) in the spent fuel storage pool. a) 177 b) 244
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.
present 589 increase size by 0
9. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity.

DATE: 1986

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH September

DOCKET NO. 50-313
 UNIT NAME ANO-1
 DATE 9/6/81
 COMPLETED BY A. J. Gertach
 TELEPHONE (501) 964-3155

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
81-12	810901	F	4.8	A	3	N/A	IF	INSTRU	Failure of Loop "B" T _H instrumentation initiated ICS runback of Rx power and increased feedwater flow. In switching ICS control to Loop "A" TAVE Rx tripped on High RCS Pressure. Repaired Loop "B" T _H instrumentation.

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-Continuation
 5-Load Reduction
 9-Other

⁴
 Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161)

⁵
 Exhibit I - Same Source

UNIT SHUTDOWNS AND POWER REDUCTIONS

INSTRUCTIONS

This report should describe all plant shutdowns during the report period. In addition, it should be the source of explanation of significant dips in average power levels. Each significant reduction in power level (greater than 20% reduction in average daily power level for the preceding 24 hours) should be noted, even though the unit may not have been shut down completely¹. For such reductions in power level, the duration should be listed as zero, the method of reduction should be listed as 4 (Other), and the Cause and Corrective Action to Prevent Recurrence column should explain. The Cause and Corrective Action to Prevent Recurrence column should be used to provide any needed explanation to fully describe the circumstances of the outage or power reduction.

NUMBER. This column should indicate the sequential number assigned to each shutdown or significant reduction in power for that calendar year. When a shutdown or significant power reduction begins in one report period and ends in another, an entry should be made for both report periods to be sure all shutdowns or significant power reductions are reported. Until a unit has achieved its first power generation, no number should be assigned to each entry.

DATE. This column should indicate the date of the start of each shutdown or significant power reduction. Report as year, month, and day. August 14, 1977 would be reported as 770814. When a shutdown or significant power reduction begins in one report period and ends in another, an entry should be made for both report periods to be sure all shutdowns or significant power reductions are reported.

TYPE. Use "F" or "S" to indicate either "Forced" or "Scheduled," respectively, for each shutdown or significant power reduction. Forced shutdowns include those required to be initiated by no later than the weekend following discovery of an off-normal condition. It is recognized that some judgment is required in categorizing shutdowns in this way. In general, a forced shutdown is one that would not have been completed in the absence of the condition for which corrective action was taken.

DURATION. Self-explanatory. When a shutdown extends beyond the end of a report period, count only the time to the end of the report period and pick up the ensuing down time in the following report periods. Report duration of outages rounded to the nearest tenth of an hour to facilitate summation. The sum of the total outage hours plus the hours the generator was on line should equal the gross hours in the reporting period.

REASON. Categorize by letter designation in accordance with the table appearing on the report form. If category H must be used, supply brief comments.

METHOD OF SHUTTING DOWN THE REACTOR OR REDUCING POWER. Categorize by number designation

¹Note that this differs from the Edison Electric Institute (EEI) definitions of "Forced Partial Outage" and "Scheduled Partial Outage." For these terms, EEI uses a change of 30 MW as the break point. For larger power reactors, 30 MW is too small a change to warrant explanation.

in accordance with the table appearing on the report form. If category 4 must be used, supply brief comments.

LICENSEE EVENT REPORT #. Reference the applicable reportable occurrence pertaining to the outage or power reduction. Enter the first four parts (event year, sequential report number, occurrence code and report type) of the five part designation as described in Item 17 of Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161). This information may not be immediately evident for all such shutdowns, of course, since further investigation may be required to ascertain whether or not a reportable occurrence was involved.) If the outage or power reduction will not result in a reportable occurrence, the positive indication of this lack of correlation should be noted as not applicable (N/A).

SYSTEM CODE. The system in which the outage or power reduction originated should be noted by the two digit code of Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161).

Systems that do not fit any existing code should be designated XX. The code ZZ should be used for those events where a system is not applicable.

COMPONENT CODE. Select the most appropriate component from Exhibit I - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161), using the following criteria:

- A. If a component failed, use the component directly involved.
- B. If not a component failure, use the related component, e.g., wrong valve operated through error; list valve as component.
- C. If a chain of failures occurs, the first component to malfunction should be listed. The sequence of events, including the other components which fail, should be described under the Cause and Corrective Action to Prevent Recurrence column.

Components that do not fit any existing code should be designated XXXXXX. The code ZZZZZZ should be used for events where a component designation is not applicable.

CAUSE & CORRECTIVE ACTION TO PREVENT RECURRENCE. Use the column in a narrative fashion to amplify or explain the circumstances of the shutdown or power reduction. The column should include the specific cause for each shutdown or significant power reduction and the immediate and contemplated long term corrective action taken, if appropriate. This column should also be used for a description of the major safety-related corrective maintenance performed during the outage or power reduction including an identification of the critical path activity and a report of any single release of radioactivity or single radiation exposure specifically associated with the outage which accounts for more than 10 percent of the allowable annual values.

For long textual reports continue narrative on separate paper and reference the shutdown or power reduction for this narrative.