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John A. Scalice
Site Vice President, Watts Bar Nuclear Plant

FEB 14 1997

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

In the Matter of ) Docket No. 50-390
Tennessee Valley Authority )

WATTS BAR NUCLEAR PLANT (WBN) UNIT 1 - JANUARY 1997 MONTHLY OPERATING REPORT

The enclosure provides the January 1997 Monthly Operating Report as required by WBN Technical Specification 5.9.4.

If you have any questions concerning this matter, please call P. L. Pace at (423) 365-1824.

Sincerely,

J. A. Scalice

Enclosure
cc: See page 2

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cc (Enclosure):
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ENCLOSURE

TENNESSEE VALLEY AUTHORITY
WATTS BAR NUCLEAR PLANT UNIT 1

MONTHLY OPERATING REPORT
TO THE
NUCLEAR REGULATORY COMMISSION
JANUARY 1997

UNIT 1
DOCKET NUMBER 50-390
LICENSE NUMBER NPF-90

OPERATIONAL SUMMARY
JANUARY 1997

WATTS BAR NUCLEAR PLANT UNIT 1

Watts Bar Nuclear Plant Unit 1 began January 1997 operating at 100% power. Power was reduced to approximately 85% at 14:30 on January 3 due to 1C Hotwell pump motor vibration. Ascension to full power was initiated at 23:20 on January 3, and the unit achieved full power on January 4.

The unit operated at or near 100% power from January 4 to January 22. At 13:51 on January 22 an automatic reactor trip occurred due to low Main Feed Water Pump (MFWP) Condenser vacuum. The root cause of the trip was the failure of MFWP condenser drain tank level switch (LS), 1-LS-6-206 A/B. A contributing cause was the inadvertent shutdown of MFWP turbine condenser drain tank pump B resulting from incidental contact with the pump handswitch. Following this forced outage, the reactor achieved criticality on January 24 at 04:50. The generator was synchronized on January 24 at 15:45 and the unit returned to full power operation on January 27.

At 06:45 on January 27 a reduction in power level was initiated due to a ruptured condenser tube. Power was reduced to approximately 45% by 07:53 to reduce the steam generator crevice heat flux and to isolate one of the two main condensers to identify and plug the leaking condenser tube. The generator was then taken off line at 20:47 on January 27 and the reactor was manually shutdown. The unit entered Mode 3 at 21:23 on January 27 and then entered Mode 4 at 05:59 on January 28 for steam generator soaks for sulfate removal.

Following condenser maintenance, the unit achieved criticality at 14:55 on January 31 and was synchronized to the grid at 03:33 on February 1, 1997.

## CHALLENGES TO THE PRESSURIZER POWER OPERATED RELIEF VALVES OR PRESSURIZER SAFETY VALVES

There were no challenges to the pressurizer power operated relief valves or pressurizer safety valves during the month of January 1997.

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-390 UNIT No. One DATE: 2/14/97

COMPLETED BY: Randy D. Tolley TELEPHONE: (423) 365-3550

MONTH: January 1997

| DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) | DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) |
|---|---|---|---|
| 1 | 1151.5 | 17 | 1168.5 |
| 2 | 1156.4 | 18 | 1163.4 |
| 3 | 1112.9 | 19 | 1166.1 |
| 4 | 1138.5 | 20 | 1161.8 |
| 5 | 1157.6 | 21 | 1157.1 |
| 6 | 1163.2 | 22 | 641.5 |
| 7 | 1162.6 | 23 | 0.0 |
| 8 | 1170.4 | 24 | 24.6 |
| 9 | 1162.7 | 25 | 832.6 |
| 10 | 1165.4 | 26 | 1144.0 |
| 11 | 1163.1 | 27 | 464.1 |
| 12 | 1172.2 | 28 | 0.0 |
| 13 | 1170.4 | 29 | 0.0 |
| 14 | 1168.3 | 30 | 0.0 |
| 15 | 1164.6 | 31 | 0.0 |
| 16 | 1167.0 | | |

# OPERATING DATA REPORT

DOCKET NO.: 50-390
DATE: 2/14/97
COMPLETED BY: R. D. Tolley
TELEPHONE: (423)365-3550

## OPERATING STATUS

1. Unit Name: **Watts Bar Unit One**
2. Reporting Period: **January 1997**
3. Licensed Thermal Power (MWt): **3411**
4. Nameplate Rating (Gross MWe): **1269.8**
5. Design Electrical Rating (Net MWe): **1160**
6. Maximum Dependable Capacity (Gross MWe): **1177**
7. Maximum Dependable Capacity (Net MWe): **1122**
8. If Changes Occur in Capacity Ratings (Item Numbers 3 through 7) Since Last Report, Give Reasons: **Items 6 and 7 have been revised principally due to a thermal performance improvement achieved by identifying and isolating a leakage path through the feedwater long cycle recirculation line.**
9. Power Level To Which Restricted, If Any (Net MWe): **N/A**
10. Reasons for Restrictions, If Any: **N/A**

| | This Month | Yr-to-Date | Cumulative |
|---|---|---|---|
| 11. Hours in Reporting Period | 744.0 | 744.0 | 6001.0 |
| 12. Number of Hours Reactor Was Critical | 615.5 | 615.5 | 5440.9 |
| 13. Reactor Reserve Shutdown Hours | 0.0 | 0.0 | 0.0 |
| 14. Hours Generator On-Line | 594.9 | 594.9 | 5399.0 |
| 15. Unit Reserve Shutdown Hours | 0.0 | 0.0 | 0.0 |
| 16. Gross Thermal Energy Generated (MWh) | 1956638 | 1956638 | 17787540 |
| 17. Gross Electrical Energy Generated (MWh) | 691543 | 691543 | 6102088 |
| 18. Net Electrical Energy Generated (MWh) | 652904 | 652904 | 5794297 |
| 19. Unit Service Factor | 80.0 | 80.0 | 90.0 |
| 20. Unit Availability Factor | 80.0 | 80.0 | 90.0 |
| 21. Unit Capacity Factor (Using MDC Net) | 78.2 | 78.2 | 86.1 |
| 22. Unit Capacity Factor (Using DER Net) | 75.7 | 75.7 | 83.2 |
| 23. Unit Forced Outage Rate | 20.0 | 20.0 | 2.9 |

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): **N/A**
25. If Shut Down at End of Report Period, Estimated Date of Startup: **N/A**

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: January 1997

DOCKET NO: 50-390
UNIT NAME: WBN-1
DATE: 2/14/97
COMPLETED BY: R. D. Tolley
TELEPHONE: (423)365-3550

| No. | Date | Type[1] | Duration (Hours) | Reason[2] | Method of Shutting Down Reactor[3] | Licensee Event Report No. | System Code[4] | Component Code[5] | Cause and Corrective Action to Prevent Recurrence |
|---|---|---|---|---|---|---|---|---|---|
| 24 | 970122 | F | 49.9 | A & G | 3 | 390/97002 | SG | LS | Automatic reactor trip caused by a failure of the main feedwater pump turbine (MFPT) condenser drain tank level switch (LS), 1-LS-006-0206 A/B. This was coincident with a personnel error involving the inadvertent placement of the handswitch for the second MFWP condenser drain tank pump in the off position. Recurrence actions include replacement of similar level switches, the performance of a review to establish whether handswitch covers should be installed, and the counseling of personnel regarding trip sensitive equipment. |
| 25 | 970127 | F | 99.2 | A | 1 | N/A | SG | TBG | Forced outage caused by a ruptured condenser tube. Corrective action involved the plugging of the ruptured tube and additional tubes in the area adjacent to the ruptured tube. |

[1]F: Forced
S: Scheduled

[2]Reason:
A-Equipment Failure (Explain)
B-Maintenance or Test
C-Refueling
D-Regulatory Restriction
E-Operator Training and License Examination
F-Administrative
G-Operational Error (Explain)
H-Other (Explain)

[3]Method
1-Manual
2-Manual Scram
3-Automatic Scram
4-Continuation of Existing Outage
5-Reduction
9-Other

[4]Exhibit G - Instructions for Preparation of Data Entry sheets for Licensee Event Report (LER) File (NUREG - 1022)

[5]Exhibit I-Same Source