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DUKE POWER

January 31, 1994

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Subject: Oconee Nuclear Station
Docket Nos. 50-269,-270,-287
Corrective Actions for October 19, 1992 Loss of
Offsite Power and EDSFI Findings (Inspection Report
50-269,-270,-287/93-02)

Attached is the quarterly update of the status of the commitments resulting from the October 19th Loss of Offsite Power event. The MG-6 relay review program (Item 8) has been completed on all Oconee Units and Keowee Hydro Units. The assessment of individual operator knowledge and skills (Item 28) has been completed. Item 19 requires the replacement of the event recorders in the Switchyard, Keowee, and Oconee. The switchyard event recorder was replaced in December 1993. Evaluation of the NRC communications for applicability to Keowee and the schedule for resolution of applicable items is being finalized (Item 1). Additional input is still needed from various work groups to complete this item. Therefore, an extension of the completion date from 01/31/94 until 02/28/94 is needed for this item.

The response to the findings in Inspection Report 50-269,-270,-287/93-02 included commitments for the completion of the Keowee DC DBD (Finding 2G) and testing of the Keowee CO₂ system pressure switch (Finding 6A). These commitments were completed in December 1993.

Finding 2E indicated the need to evaluate the maximum and minimum expected voltages for the auxiliary power system voltage analysis. This calculation is approximately 98% complete. Additional variations on the system model are being evaluated using the mainframe program. The analysis is expected to be completed by 02/28/94. The original due date for this item was 10/30/93.

In addition to the completion of the Keowee DC DBD, Finding 2G detailed the need for individual voltage component calculations for Keowee. The calculation for this finding requires input from Westinghouse Electric, Sperry Vickers, and equipment data compiled by Oconee technicians. In order to incorporate all the data in the calculation, an extension

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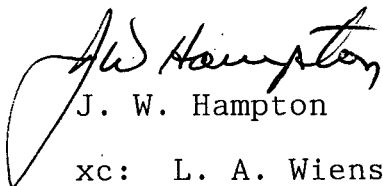
of the completion date from 12/31/93 until 02/15/94 is necessary for this finding.

The response for Finding 6A indicated that the level switches in the oil systems would be calibrated by 12/31/93. The procedures for the testing have been completed and approved for the testing of the level switches. In order to complete all the testing, the oil reservoirs for the generator thrust bearings and the turbine guide bearings must be drained to the low oil levels. This makes the units unavailable during the test. Therefore, it is desirable to perform this testing during scheduled Keowee unavailable time. Consumption of I&E craft by the Oconee Unit 3 refueling outage has pushed this completion date to 04/01/94.

The inclusion of the Keowee equipment in the Inservice Testing (IST) program and testing of valves 10G-7 and 20G-7 are part of the corrective actions for Finding 6B. The completion date for the inclusion of the Keowee equipment in the IST program has been extended from 12/31/93 until 05/01/94. The completion date for the valve tests has been extended from 12/31/93 to 08/15/94. These changes are necessary to support the initiation of minor modifications required to perform the testing.

The extensions listed above are the first for the corrective actions. If there are any questions, please contact Steve Benesole at (803) 885-3292 or Michael Bailey (803) 885-4390.

Very Truly Yours,


J. W. Hampton

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DUKE POWER COMPANY
OCONEE NUCLEAR STATION

ATTACHMENT

Commitments from October 19, 1992 Event

Commitments from October 19, 1992 Event

Schedule

1. Evaluation of NRC communications applicable to Keowee with schedule for resolution 2/28/94

Switchyard Equipment, Design and Testing Commitments:

2. Switchyard battery charger testing Completed 6/93
3. Switchyard breaker failure relay modifications Completed prior to Oconee 2 restart
4. Switchyard synchroscope repair Completed 2/24/93, Tested 3/16/93
5. Overhead emergency power path integrated test Completed 5/93

Keowee Auxiliary Power System Equipment, Design, and Testing Commitments:

6. Westinghouse DB breaker modifications to provide electrical anti-pump logic Completed 7/92 (Keowee Unit 1)
Completed 11/92 (Keowee Unit 2)
7. Westinghouse DB breaker modifications to add time delay in breaker closing circuit (allows closing with reduced DC voltage) Completed 12/92
8. MG-6 relay review for repair and PM program Review completed:
7/93 (Keowee)
2/93 (Oconee Unit 1)
6/93 (Oconee Unit 2)
1/94 (Oconee Unit 3)
9. MG-6 relay replacement in Keowee auxiliary transfer circuits Completed September 1993
10. Keowee auxiliary bus transfer logic modification Completed September 1993
11. Keowee auxiliary bus transfer logic timing circuitry testing Completed September 1993
12. Keowee black start test Completed December 1992

Keowee Unit Protection Equipment, Design and Testing Commitments:

Schedule:

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|-----|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 13. | Trip function on low voltage at main step-up transformer modification not to affect operating Keowee Unit | Completed November 2, 1992 |
| 14. | Deletion of speed switch from field circuits | Completed July 1992
(Keowee Unit 1)
Completed November 1992
(Keowee Unit 2) |
| 15. | Keowee load rejection test while aligned to grid | Completed October 25, 1992 |
| 16. | Keowee zone relay protection single failure vulnerability | December 1994 (currently administratively controlled) |

Other Keowee support items Equipment, Design and Testing Commitments:

- | | | |
|-----|---------------------------------------------------------------------|----------------------------------------------------------|
| 17. | Keowee computer typer connection to computer power supply inverter | Completed prior to Oconee 2 restart |
| 18. | Keowee statalarm modification to power from uninterruptible source | Completed January 29, 1993 |
| 19. | Events recorder replacement
- Switchyard
- Keowee
- Oconee | Completed December 1993
December 1994
October 1994 |
| 20. | Review of IEB 79-27 related power supplies | Completed January 28, 1993 |

Communications Equipment:

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|-----|-----------------------------------------------------------------------------------------------------|-------------------------|
| 21. | Facility telephone system cable and battery backup | Completed March 1993 |
| 22. | Base radio system from Keowee control room to Oconee control room | Completed November 1992 |
| 23. | Hand held radios capable of transmitting from the Keowee generator floor to the Oconee control room | Completed November 1992 |

Keowee Operator Training Upgrade Plan

Schedule:

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| 24. | Keowee personnel training on requirements of Operations Management Procedure 5-2, "Duties and Responsibilities of Keowee Station Personnel" | Completed November 1992 |
| 25. | Task Qualification of Keowee operators to all Keowee operating, testing and maintenance procedures relating to the emergency operation of Keowee | Completed November 1992 |
| 26. | Job Analysis | Completed May 1993 |
| 27. | Task Analysis (includes lesson plan development and/or training and qualification guide) | Completed August, 1993 |
| 28. | Individual operator knowledge and skills assessment and upgrade | Completed December 1993 |

Keowee Emergency Response Procedure

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|-----|-----------------------------------------------------------------------------|------------------------|
| 29. | "Emergency Start Actuated" indicating light added to Keowee control boards. | Completed October 1992 |
| 30. | Keowee EOP | Completed October 1992 |

Keowee Emergency Response Training

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|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| 31. | Job Performance Measures (JPMs) developed to verify loss of auxiliary power or supply of power to Oconee from Keowee scenarios | Completed November 1992 |
| 32. | All Keowee personnel trained and qualified to all 5 JPMs | Completed November 1992 |
| 33. | Oconee licensed operators given walk-through training on these JPMs | Since October 1992 |
| 34. | Refresher training for Oconee operators to perform remote startup and operation of Keowee from the Oconee control room | Completed June 1993 |
| 35. | All Oconee shift operators (licensed and non-licensed) to be qualified to task 001745801, "Perform Required Actions for an Emergency Start of the Keowee Hydro Units" | Completed August 1993 |

Oconee Loss of Offsite Power Procedure

Schedule:

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|-----|---------------------------------------------------------------------------|-------------------------|
| 36. | Revised to include all steps necessary to recover offsite power to Oconee | Completed December 1992 |
| 37. | Revised to include both dead bus and live bus transfer options | Completed December 1992 |
| 38. | Live bus transfer functionally tested and verified | Completed March 1993 |