Preliminary 23

TEST RESULTS REPORT

PROCEDURE NO. 92HF-1SV01

PROCEDURE TITLE Loose Parts and Vibration Monitoring System Hot Functional

REVISION AT THE COMMENCEMENT OF TESTING 0 DATE 5/6/83

REVISION AT COMPLETION OF TESTING 0 DATE 6/7/83

LATEST TEST CHANGE NOTICE NO. 7 DATE 6/1/83

DATES OF TEST PERFORMANCE 5/6/83 to 6/7/83

Review and
Approval of Test Results

PREPARED BY: C R Schmidt DATE: 6/11/83

TECHNICAL REVIEW: W E Zeigler DATE: 6/14/83

GROUP SUPERVISOR REVIEW: B K Bennett DATE: 6/14/83

TEST WORKING GROUP MEETING NUMBER: _____ DATE: _____

PLANT REVIEW BOARD MEETING NUMBER: _____ DATE: _____

QUALITY ASSURANCE REVIEW: _____ DATE: _____
(Required for Test Results Reports not reviewed by TWG)

STARTUP MANAGER APPROVAL: _____ DATE: _____

50-528

Test Purpose and Scope

The purpose of this test was to obtain baseline data for each reactor coolant pump initial start and run during the reactor coolant heatup phase. A second purpose was to botain baseline data for all Loose Parts and Vibration channels during steady state inwhich four (4) reactor coolant pumps running and primary parameters of normal operating temperature and pressure. Exception to the data baseline are the six (6) core internal channels because of no neutron source.

Complimentary Test

None

Test Description

The data was obtained by two (2) methods:

1. The two (2) installed system tape recorders were utilized to record a minimium of five (5) minutes of data. Specific channels associated with each reactor coolant pump were recorded during initial start and run. Each channel was recorded with four (4) reactor coolant pumps operating at normal plant temperature and pressure.
2. A spectrum analyzer and X-Y plotter were used to obtain permanent frequency verses amplitude for a specific point during initial reactor coolant pump run. Each channel was recorded with the four (4) reactor coolant pumps operating at normal plant temperature and pressure.

Test Events

The data recording started on May17,1983 and concluded June 7, 1983. During this time period there were two (2) major problems but neither impacted the data gathering.

The first problem symptoms were: No audio output, No -15 volts, Reactor Coolant Pump Proximity circuits having identical characteristics.

The cause of this problem appeared to be the proximity probe signal lead being grounded by the metal ID tag installed at the transmitter. Moving the ID tag cleared the ground, resetting the -15 volt power supply restored the audio and the proximity circuits again had there individual characteristics.

The second problem symptom was the OK lamp for channel twenty four (24) being intermittenly extinguished. Each proximity circuit has an OK status lamp which is illuminated when the circuit is operating. A work order has been written to investigate and repair the problem.
Since the probe and transmitter are located inside the reactor coolant pump coupling housing, no investigative work can be initiated presently.
Neither problem prevented the recording of all required data points.
There was a total of seven (7) TCN's written of which one (1) was a scope change. The scope change was required because the upper chassis tape recorder is hard wired for specific channels dependent upon the X-Y slector switch.
The remaining six (6) TCN's corrected typographical errors, revised revision numbers, added new step for alternate test equipment and changed taperecorder drive speed for improved resolution.

Test Results

All data points required to be recorded by tape recorder and X-Y plots were made. There were three (3) TER's written due to the reactor coolant pumps being started prior to the fifteen (15) second elapsed time run of the tape recorder. Two (2) of the recordings had no pre pump start elapse time and one (1) had only ten (10) seconds.

Conclusion

The data has been obtained and is available in both hard and soft copy for the Reactor Coolant System. This data is a baseline for single pump run from ambient temperature and pressure thru four (4) pump running at standard operating temperature and pressure with no reactor core.

Recommendation

1. No additional data for this system configuration.
2. During post core hot functional testing a similiar test should be performed to obtain a new baseline. This would be representitive of the system for the addition of the reactor core.
3. During the power ascension time period initial baseline data should be taken for the six (6) core internal channels when a neutron source is available.

4. The acceptance of this test and recorded data is recommended. The basis for the acceptance recommendation is based on meeting the required commitment of the FSAR Appendix 4A NRC Question 492.1 Response 3 by the baseline data being recorded on both tape recordings and X-Y plots for all required channels.