Public Service Company of Colorado

16805 WCR 19 1/2, Platteville, Colorado 80651

August 30, 1983
Fort St. Vrain
Unit #1
P-83294

Mr. Phil Wagner, Project Manager
U. S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Dr., Suite 1000
Arlington, TX 76011

SUBJECT: Fort St. Vrain Unit No. 1
B-O Start-Up Tests

Dear Mr. Wagner:

With the completion of the fluctuation test program (RT-500K), and the NRC's release from 70% power restrictions, we are now making preparations to complete the B-O Start-Up Test program to 100% power.

We have evaluated the program completed to date, and we have concluded that the test program has been completed through Sequence 70 with a good portion of the steady state testing for Sequences 71 through 79 having also been completed.

The major areas in which testing remains to be completed are as follows:

Sequence 72 (Includes 73 & 74)	Reactor Power Rise to and Test at 100% Power
Sequence 75	Xenon Stability Test at 100% Power
Sequence 76 (Includes 77 & 78)	Automatic Load change from 100% Reactor Power to 30% and Return to 100%
Sequence 79 (Includes 80)	Turbine Generator Load Shedding from and Recovery to 100% Power

As indicated in the attached tabulation a good portion of the above listed tests were completed during the fluctuation test program in our rise to 100% power in September, October and November 1982.

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With the exceptionof Sequence 75, Xenon Stability Tests and Sequence 79, Turbine Load Rejection we plan to complete the B-O start-up testing in this fuel cycle as follows:

1. Beginning immediately, increase reactor power in ~ 5% increments from 70% to 85% power. Complete all steady state testing to 85% power.

2. Remain at or about 85% for most of the remainder of this fuel cycle.

3. Toward the end of this fuel cycle increase power from 85% to 100% and complete all steady state testing.

4. At the end of the fuel cycle complete Sequences 76, 77 and 78 involving automatic load swings of the unit.

With reference to the Xenon Stability Tests, the original test was written on the basis of introducing perturbations from equilibrium conditions by control rc movements to indicate the absence of any sustained Xenon oscillations. The test was written, of course, on the basis of the initial core loading. With continued operation over the years we now find that we cannot conduct the test without deviating from the approved control rod withdrawal sequence which will require Technical Specification changes. Given the analyses that must be made and the time required to effect necessary changes we will not be able to conduct the Xenon stability tests during this fuel cycle. We will continue to evaluate this portion of the test program with the objective of trying to complete the Xenon stability tests during the next fuel cycle.

With reference to load rejection from full power (Sequences 79 and 80) we do not believe this test is in the best interest of Fort Saint Vrain. Although not conducted as a part of the B-O test program, we did successfully demonstrate a load rejection from 100% power on November 9, 1981. The transient November 9, 1981 was initiated by a circulator trip at 100% power followed by the trip of a second circulator, loop isolation and a turbine run back. This transient more than adequately demonstrated the plant response and in our opinion represented a more severe transient than that imposed by Sequences 79 and 80. We believe that any further testing along these lines is not justifiable in terms of the health and safety of the public and is certainly not justifiable in terms of purposely taking the plant through such a transient. We believe that over the years of operation of Fort Saint Vrain we have more than adequately demonstrated the transient response of the plant to an extent far in excess of that required by the B-O Test program. It is requested, therefore, that sequences 79 and 80 be eliminated from the B-O start-up test program.

With reference to the overall B-O start-up program we recognize that certain conditions such as the last stage of the turbine being removed and feedwater heater #5 out of service will have some effect on the secondary side of the plant. We believe these conditions can be accommodated within the test data evaluation process and most certainly can be confirmed sometime in the future.

Unless we hear from you to the contrary we are proceeding as outlined above. We would specifically request your concurrence with delaying the Xenon stability tests and waiving the full load rejection tests.

Very truly yours,

Don W Warembourg

Don W. Warembourg
Manager, Nuclear Production
Fort St. Vrain Nuclear
Generating Station

DWW/djc

Attachment

Attachment 1

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Status B-0 Start-Up Test Program

LEGEND

SUT B-1	Steam System Performance
SUT B-2	Primary Coolant Chemical Impurity Analyses
SUT B-3	P.C.R.V. Performance
SUT B-4	Primary System Performance
SUT B-5	Plant Instrumentation Performance
SUT B-6	Plant Transient Performance
SUT B-7	Plant Automatic Control System Performance
SUT B-8	Reactivity Coefficient Measurements
SUT B-9	Differential Control Rod Worth Measurements
SUT B-10	Xenon Build-Up and Decay Measurements
SUT B-11	Xenon Stability
SUT B-12	Shielding Survey
SUT B-13	Radio Chemistry Analysis, Primary Coolant

B-0, Sequence 71, Return from 70% Power to 80% Power

SUT	STATUS	REMARKS
SUT B-2, Part 1	Complete	Some Additional Data Required
SUT B-2, Part 2	Complete	Some Additional Data Required
SUT B-2, Part 3	Complete	
SUT B-3, Part 1R	Complete	
SUT B-3, Part 1S	Complete	
SUT B-3, Part 2R	Complete	Some Additional Data Required
SUT B-3, Part 3A	Complete	Some Additional Data Required

B-0, Sequence 72, Reactor Power Rise to 100%

SUT	STATUS	REMARKS
SUT B-2, Part 1	Complete	Some Additional Data Desirable
SUT B-2, Part 2	Complete	Some Additional Data Desirable
SUT B-2, Part 3	Complete	
SUT B-3, Part 1R	Complete	
SUT B-3, Part 1S	Complete	
SUT B-3, Part 2R	Complete	
SUT B-3, Part 3A	Complete	
SUT B-8, Part 19	Not Complete	
SUT B-1, Part 1P	Complete	
SUT B-1, Part 5E	Not Complete	
SUT B-1, Part 6I	Complete	
SUT B-3, Part 1Q	Complete	Some Additional Data Required
SUT B-3, Part 2Q	Complete	
SUT B-3, Part 3B	Complete	
SUT B-4, Part 1O	Not Complete	
SUT B-4, Part 3C	Not Complete	
SUT B-5, Part 1M	Not Complete	
SUT B-5, Part 2B	Complete	
SUT B-5, Part 3H	Not Complete	Some Additional Data Required
SUT B-7, Part 2D	Not Complete	
SUT B-7, Part 3D	Not Complete	

SUT	STATUS	REMARKS
SUT B-7, Part 7D	Not Complete	
SUT B-7, Part 8D	Not Complete	
SUT B-7, Part 10D	Not Complete	
SUT B-7, Part 14F	Not Complete	
SUT B-7, Part 15F	Not Complete	
SUT B-7, Part 16E	Not Complete	
SUT B-7, Part 17D	Not Complete	
SUT B-7, Part 18C	Not Complete	
SUT B-7, Part 19E	Not Complete	
SUT B-9, Part 25	Not Complete	
SUT B-10, Part 4	Not Complete	
SUT B-12, Part 2	Not Complete	
SUT B-13, Part 10	Not Complete	
SUT B-13, Part 2D	Not Complete	

B-O, Sequence 75, Xenon Stability

SUT	STATUS	REMARKS
SUT B-2, Part 1	Complete	Some Additional Data Required
SUT B-2, Part 2	Complete	Some Additional Data Required
SUT B-2, Part 3	Complete	
SUT B-3, Part 1R	Complete	
SUT B-3, Part 1S	Complete	
SUT B-3, Part 2R	Complete	Some Additional Data Required
SUT B-3, Part 3A	Complete	
SUT B-9, Part 26	Not Complete	
SUT B-11	Not Complete	

B-O, Sequence 76, Automatic Load Change 100%-30%-100% Power

SUT	STATUS	REMARKS
SUT B-1, Part 2G	Not Complete	
SUT B-2, Part 1	Complete	Some Additional Data Required
SUT B-2, Part 2	Complete	Some Additional Data Required
SUT B-2, Part 3	Complete	
SUT B-3, Part 1R	Complete	
SUT B-3, Part 1S	Complete	
SUT B-3, Part 2R	Complete	Some Additional Data Required
SUT B-3, Part 3A	Complete	
SUT B-5, Part 1N	Not Complete	
SUT B-5, Part 3I	Complete	Some Additional Data Required
SUT B-7, Part 20H	Not Complete	
SUT B-8, Part 20	Not Complete	
SUT B-9, Part 27	Not Complete	
SUT B-10, Part 5	Not Complete	
SUT B-13, Part 1P	Not Complete	
SUT B-13, Part 2E	Not Complete	
SUT B-1, Part 2H	Not Complete	
SUT B-1, Part 20I	Not Complete	
SUT B-8, Part 21	Not Complete	

B-O, Sequence 79, Turbine Generator Load Shedding

SUT	STATUS	REMARKS
SUT B-0, Part 2I	Not Complete	
SUT B-1, Part 7E	Not Complete	
SUT B-2, Part 1	Complete	Some Additional Data Required
SUT B-2, Part 2	Complete	Some Additional Data Required
SUT B-2, Part 3	Complete	
SUT B-3, Part 1R	Complete	
SUT B-3, Part 1S	Complete	
SUT B-3, Part 2R	Complete	Some Additional Data Required
SUT B-3, Part 3A	Complete	
SUT B-6, Part 9	Not Complete	