



Public Service  
Company of Colorado

2420 W. 26th Avenue, Suite 100D, Denver, Colorado 80211

December 19, 1985  
Fort St. Vrain  
Unit No. 1  
P-85478

Director of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Attn: Mr. H.N. Berkow, Project Director  
Standardization and Special  
Projects Directorate

Docket No. 50-267

SUBJECT: CRDM Assembly

REFERENCES: 1) PSC Letter Warembourg  
to Butcher dated  
November 5, 1985  
P-85380

2) PSC Letter Brey  
to Berkow, dated  
December 12, 1985  
P-85463

Dear Mr. Berkow:

Reference letter 1) established and letter 2) reiterated the PSC commitment to complete the high temperature, 300 degree Fahrenheit, test of a CRDM assembly by December 30, 1985, including a preliminary evaluation of the test results. Unfortunately, we will be unable to complete this project by December 30, 1985.

We have been pursuing this project very diligently, however we continue to experience minor problems which are beyond our control. Some of those problems were:

1. The CRDM assembly when received from FSV had a problem with the orifice valve not working correctly. The CRDM had to be disassembled to correct.
2. The Back-EMF test equipment would not work correctly because of induced voltages into the test signal. This resulted in shielding and physical movement of equipment to correct.

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AD - D. CRUTCHFIELD (Ltr only)  
EB (W. JOHNSTON)  
RSB (THOMAS)  
ETCSB (PARR)  
FOB (W. REGAN)

3. Specified test temperatures could not be attained in the autoclave. To resolve, additional insulation had to be added to the exterior of the autoclave.
4. Erratic moisture readings are being witnessed. To correct, the point of sensing had to be changed to a more representative location.
5. Helium purity is a continuing problem. We have experienced changes in moisture and total oxidant levels which cannot be justified. Total inventory of helium has been purged several times, the helium purification system has been regenerated several times, and we are now rechecking the system to determine if there is inleakage, or if there may be some problem with the procedure used to regenerate the purification system which would allow contaminants to be introduced.

The helium purity is the last remaining problem to be resolved before the test cycle begins. There are no outstanding problems with the CRDM assembly.

The actual time to perform the test is 21 days minimum, with an additional 3-4 days to evaluate the results and advise the NRC. It is anticipated that helium purity will be within specification limits this week and the test can then proceed. Because of the unknowns which can delay us even further, we will continue to pursue the testing with all diligence and will inform the NRC of the test results based on a preliminary evaluation as soon as the information is available but no later than January 30, 1986. Our commitment to submit the final report remains as March 31, 1986.

If you have any questions concerning this subject, please contact Mr. M.H. Holmes at (303) 480-6960.

Very truly yours,

*D. W. Warembourg*  
D. W. Warembourg, Manager  
Nuclear Engineering Division

DWW/JRR:pa