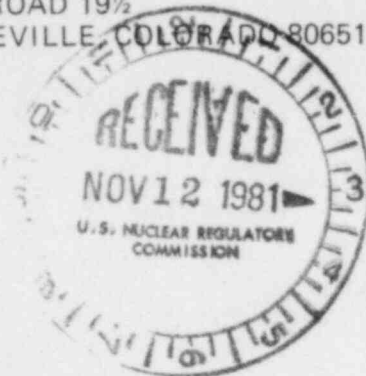




# Public Service Company of Colorado

16805 ROAD 19 1/2  
PLATTEVILLE, COLORADO 80651



October 26, 1981  
Fort St. Vrain  
Unit No. 1  
P-81270

Mr. George Kuzmycz  
U. S. Nuclear Regulatory Commission (NRC #2)  
7920 Norfolk Ave.  
Bethesda, Maryland 20034

SUBJECT: Tech. Spec. LCO 4.2.9

Dear Mr. Kuzmycz:

On June 5, 1980, see (Reference 1) we requested relief from Tech. Spec. LCO 4.2.9 for a steam generator penetration interspace leak (purified helium to the cold reheat steam). At that time we indicated that the defined leakage path was not really under the auspices of LCO 4.2.9, but we indicated that we would include this leakage rate in our operation if the leak rate could be increased from 400 #/day to 700 #/day. We received permission to operate on this basis.

Subsequently, our leak rate approached the 700 lb/day limit and we discussed various alternatives including but not necessarily limited to the following:

1. The defined leak path is not under the auspices of LCO 4.2.9 and this leakage rate therefore should not be included in the overall leak rate of LCO 4.2.9 provided that we could demonstrate integrity of the primary and secondary closures. On this basis the leak rate in terms of quantity is not limited by Technical Specifications but rather by the economics of operation.
2. Based on the defined leak path and the capability of demonstrating the integrity of the primary and secondary closures it may be possible to operate keeping the penetration interspace pressure just slightly above cold reheat steam pressure, but below reactor vessel pressure.

Our leakage rate has been exceeding the 700 lb/day and we are therefore pursuing the alternatives listed above for continued reactor operation.

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1. If the economics of operation permit we would like your concurrence that the defined leak path is not under the auspices of LCO 4.2.9 and therefore not subject to the leak rate of LCO 4.2.9. On this basis operation with the defined leak path is permissible provided that the integrity of the primary and secondary closures can be periodically demonstrated per our letter P-80139.
2. With reference to Item 2 we would intend to operate as follows:
  - A. Operate the steam generator interspace penetration for module B-2-3 as a separate entity.
  - B. Reference the interspace pressure to cold reheat steam pressure and maintain the penetration interspace at a pressure slightly above cold reheat pressure.
  - C. As indicated in our letter P-80139 we would continue to verify primary and secondary closure integrity by periodic testing.

Under the provision of Item 2 we would fulfill the requirements of LCO 4.2.7 by performing the following:

1. Monitor the reheat steam radiation monitors once per shift for indication of primary closure leakage (ie. Primary coolant into the penetration interspace and into the reheat steam system).
2. Once per week (nominally every seven (7) days but not to exceed nine (9) days) demonstrate the capability of pressurizing the interspace of B-2-3 to reactor pressure.
3. Continue to monitor the interspace leakage route by a pressure decay test every two (2) weeks.

The basis for LCO 4.2.7.c. is primarily to demonstrate integrity of the primary and secondary closures to eliminate the possibility of a large primary coolant leak as a result of failure of the primary closure and subsequent failure of a secondary closure.

We believe we are meeting the basis of the Tech. Spec. for LCO 4.2.7.c. and 4.2.9 based on the following:

1. The leakage path is internal to the penetration and not specifically addressed by LCO 4.2.9, or LCO 4.2.7.c.

2. With the defined leakage path any failure of the primary closure will result in a primary coolant leak path into the reheat steam system.
3. The reheat steam system is monitored and high activity in the reheat system results in Plant Protective System (PPS) action for loop isolation. Under this action the reheat steam system is isolated to prevent any further primary coolant leakage with the secondary steam system.
4. In addition the reheat system is monitored by two very sensitive radiation monitors which alarm at levels much lower than the PPS radiation monitor, which in turn can be utilized by the operator as an indication of primary closure leakage for possible manual operator action.
5. The basis for release of primary coolant in LCO 4.2.7.c., and LCO 4.2.9, is based on a design activity of 30,000 Ci with the effect of the release staying an order of magnitude below 10CFR100 limits. We are presently running about 234 Ci circulating activity, a factor of 128 below the design activity.
6. As mentioned above any leakage into the reheat system and thus to the environment is isolatable either by manual operator action or automatically by the PPS reheat radiation monitoring instrumentation.
7. Maintaining one interspace (B-2-3) at cold reheat pressure only results in a differential pressure across the primary closure of about 150 psi (depending on plant load) which is considerably less than the 688 psi differential that serves as a basis for LCO 4.2.7. and LCO 4.2.9.

It is our opinion therefore that operation of the B-2-3 interspace penetration at Cold Reheat Steam Pressure with the added program outlined above meets the fuel intent of the Technical Specification. We request your concurrence with this position.

We currently have the reactor below 2% power awaiting your evaluation. We have been up to 74% in the RT-500 test program and your concurrence would permit us to complete this test program prior to the loop split outage. Upon completion of the RT-500 test we will be shutting down for the loop split outage, and we would intend to evaluate the penetration leakage more thoroughly at that time. Your immediate attention to this matter is greatly appreciated.

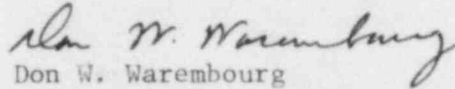
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It should also be noted that in your letter which provided permission to test under RT-500K you limited the test program to completion by October 31, 1981. We assume with these delays that we could extend this date into November.

Very Truly Yours,

A handwritten signature in dark ink, appearing to read "Don W. Warembourg". The signature is fluid and cursive, with the first name "Don" being particularly prominent.

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

DWW/skd