

Duquesne Light Company

Beaver Valley Power Station
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November 19, 1990

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

Reference: Beaver Valley Power Station, Unit No. 2
Docket No. 50-412, License No. NPF-73
Request for Temporary Waiver of Compliance

Gentlemen:

The purpose of this letter is to request NRC approval of a temporary waiver of compliance in meeting the Beaver Valley Unit No. 2 Technical Specifications. Unit No. 2 is currently in the restart phase following the second refueling outage. The Limiting Condition for Operation (LCO) for the auxiliary feedwater system requires at least three steam generator auxiliary feedwater pumps (two motor-driven, one steam turbine-driven) to be operable in modes 1, 2, and 3. Surveillance requirement 4.7.1.2.a.1.b allows the plant to enter mode 3 without the steam turbine-driven auxiliary feedwater pump operable since plant conditions in mode 4 will not permit testing. However, the action statement places a 72 hour restriction on the time allowed to declare the inoperable pump operable, otherwise, the plant must return to mode 4.

During testing of the turbine-driven auxiliary feedwater pump the governor control failed necessitating repairs and retesting. At the time of failure there was approximately 9 hours remaining in the Technical Specification action statement for declaring this pump operable. It was determined that repairs and retesting will take longer than 9 hours. However, the work was expected to be completed within the following 24 hours. On this basis, a conference call was held on November 17, 1990, between members of my staff and Region 1 staff.

The verbal request was for a 24 hour extension of an action statement time limit to allow maintenance and testing to be completed to declare the pump operable. Prompt action was needed to avoid a short duration mode change back to mode 4, which would place an unnecessary thermal cycle on the reactor plant. Since the plant was in a restart sequence, following the second refueling outage it was anticipated that entry into mode 1 would occur within the next 40 hours.

This request is characterized as a regional waiver of compliance since the relief is temporary and non-recurring such that a permanent license amendment is not appropriate. Plant safety is promoted by avoiding an unnecessary reactor plant thermal cycle and reactor start-up is supported by remaining in mode 3. Approval of this request precludes changing to mode 4 and delaying the present restart schedule.

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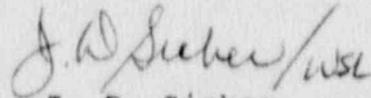
Our evaluation of this request concludes there is no reduction of safety margin or changes to offsite dose assumptions since two motor driven auxiliary feedwater pumps are operable and capable of removing decay heat.

This request was verbally approved on November 17, 1990, with the assumption that our formal request would be submitted by 11:00 a.m. on November 19, 1990. This submittal constitutes our formal request.

Additional details supporting this request are located in the enclosure which addresses the current understanding of the level of detailed required with respect to requesting a temporary waiver of compliance. This request has been reviewed by our onsite safety committee.

If you have any questions regarding this submittal, please call me or members of my staff.

Sincerely,



J. D. Sieber
Vice President
Nuclear Group

cc: Mr. J. Beall, Sr. Resident Inspector
Mr. T. T. Martin, NRC Region I Administrator
Mr. A. W. DeAgazio, Project Manager
Mr. R. Saunders (VEPCO)

ATTACHMENT

Evaluation Supporting a Temporary Waiver of Compliance
(Re: Inoperable Steam Turbine-Driven Auxiliary Feedwater Pump)
Beaver Valley Power Station - Unit No. 2

1. Discuss the requirements for which a waiver is requested:

This waiver addresses Technical Specification Limiting Condition of Operation (LCO) 3.7.1.2.b "Auxiliary Feedwater System." This LCO requires the steam turbine-driven auxiliary feedwater pump to be operable in Modes 1, 2, and 3.

Surveillance requirement 4.7.1.2.a.1.b allows entry into mode 3 without having proven operability of the steam turbine-driven pump. The reason for this is that the plant has to heat up sufficiently to provide a steam source to operate the turbine-driven pump. While in this configuration, action statement "a" of LCO 3.7.1.2 is in effect, which requires restoring the inoperable pump to operable status within 72 hours or be in hot standby within the next 6 hours and in hot shutdown within the following 6 hours. Therefore, plant conditions and testing must be completed within this time period, otherwise, it is required that the plant return to mode 4.

We are unable to satisfactorily complete the required testing to declare the pump operable within the time constraints specified in the LCO action statement. Maintenance activities are in progress and testing is expected to be completed shortly after we are required to be in mode 4. We, therefore, request a temporary waiver of compliance from meeting Technical Specification LCO action statement 3.7.1.2.a for a short duration of 24 hours so the plant may remain in mode 3 to complete the maintenance and testing on the steam turbine-driven auxiliary feedwater pump.

2. Discuss the circumstances surrounding the situation including the need for prompt action, and why the situation could not have been avoided:

Beaver Valley Unit No. 2 is currently completing its' second refueling outage and going through the actions necessary to support restart. The plant is in mode 3 and it is anticipated that entry into mode 1 will occur within the next 40 hours. During this outage the rotating element of the steam turbine-driven auxiliary feedwater pump was replaced.

The plant entered mode 3 at 0112 hours on November 14, 1990, and had to demonstrate operability of the steam turbine-driven auxiliary feedwater pump as stated in item 1 above. Testing to demonstrate operability began at approximately 0530 hours on November 14, however, the acceptance criteria of surveillance requirement 4.7.1.2.a.1.b could not be satisfied. The test data was evaluated and an investigation was performed to determine what actions were necessary to successfully pass the operability test. Retesting could not be conducted on November 15 due to other testing, which required stable reactor plant conditions. On

November 16 several retests were conducted. The last test was to monitor pump performance while operating at a slightly higher speed (increase pump speed from 4350 RPM to 4400 RPM). While adjusting the governor to increase pump speed, an internal component apparently failed. This occurred at approximately 0351 hours on November 17. Maintenance activities were immediately initiated, however, approximately 9 hours remained as the time required to declare this pump operable. It was concluded that the maintenance and test activities could not be completed within the next 9 hours. However, if a 24 hour extension to the action statement was granted, we would be able to complete the maintenance and testing activities.

At 0830 hours on November 17, 1990, a conference call was held between members of the plant staff and Region 1 staff for the purpose of requesting a one-time extension of an action statement time limit. Prompt action was needed to avoid a short duration mode change back to mode 4, which would place an unnecessary thermal cycle on the reactor plant. It is believed that maintenance and governor adjustments will result in satisfactorily demonstrating pump operability. By remaining in mode 3, a thermal cycle will be avoided and entry into mode 1 will occur within the next 40 hours.

3. Discuss compensatory actions (if any):

The plant will remain in mode 3 for the duration of the approved temporary waiver of compliance. As discussed during the conference call, we will open the reactor trip breakers and place them on clearance to remove the potential for plant heatup due to reactor criticability. Upon expiration of the temporary waiver we will adhere to the existing Technical Specifications.

4. Provide a preliminary evaluation of the safety significance and potential consequences of the proposed request:

The function of the auxiliary feedwater system is to provide a heat sink for the reactor coolant system. This is accomplished by providing 350 gpm flow to the steam generators while assuming a loss of offsite power and a single failure (ie: one emergency diesel generator fails to start). Both motor-driven auxiliary feedwater pumps are capable of providing 350 gpm flow and both are operable. Should one of these become inoperable, the plant would be placed in mode 4 as required by LCO 3.7.1.2. The turbine-driven auxiliary feedwater pump is designated to provide 700 gpm flow to the steam generators upon loss of offsite power or low-low steam generator level.

With the plant on a restart schedule following this refueling outage and not having been critical, the source term falls well within that analyzed for a refueling accident and well below the assumptions made for a loss of offsite power event (ie: 10%

power equilibrium conditions). One motor-driven auxiliary feedwater pump is all that is required to satisfy accident conditions. Current plant conditions (ie: available equipment, heat load, source term) all result in margin to assumed accident conditions. Maintaining the reactor trip breakers open assures the reactor will not go critical and add reactor heat or change the source term during this requested temporary waiver.

Therefore, the extension of time in mode 3 with the steam-driven auxiliary feedwater pump inoperable will not impact the offsite radiological consequences of loss of offsite power or loss of feedwater events. There are no changes to the results of our safety analyses and, therefore, no increase in the potential consequences of any postulated accident.

By avoiding a thermal cycle on the reactor plant we are not imposing unnecessary actions on the plant and are maintaining the reactor start-up schedule, which would otherwise, be precluded by Technical Specifications. This proposed course of action involves no safety reduction.

5. Discuss justification for the duration of the request:

This additional time is needed to avoid a short duration mode change back to mode 4. It is anticipated that the maintenance on the governor, the adjustments necessary to provide acceptable test results and the satisfactory completion of the operability test will be completed within the time requested (barring unforeseen additional problems) in this temporary waiver of compliance. Approval of this short duration extension of the action statement will allow us to avoid an unnecessary thermal cycle on the reactor plant.

6. Provide a basis for the conclusion that the request does not involve a significant hazards consideration:

The change in the action statement time limit will not increase the probability of an accident previously evaluated. The auxiliary feedwater system will remain capable of removing decay heat from the reactor core. There is no safety analyses impact or change in offsite dose consequences as a result of remaining in mode 3 for an additional 24 hours. On this basis it is concluded that this request does not involve a significant hazards consideration.

7. Provide a basis for the conclusion that the request does not involve irreversible environmental consequences:

The offsite dose analyses and accident analyses are not affected. There is no planned release to the environment as a result of this request. Therefore, based on the continued ability of the auxiliary feedwater system to remove decay heat, and no postulated release to the environment, this change does not involve irreversible environmental consequences.