



Duquesne Light Company

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December 30, 1994

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

**Subject: Beaver Valley Power Station, Unit No. 2
Docket No. 50-412, License No. NPF-73
Request for Enforcement Discretion**

This letter provides our request for NRC enforcement discretion regarding extension of Surveillance Requirement 4.3.1.1.1 overtemperature and overpower ΔT quarterly channel functional test surveillance interval. This request is characterized as a Regional request since the relief is temporary and non-recurring such that a permanent license amendment is not appropriate.

Details supporting this request are located in the enclosure which has been prepared in accordance with the NRC's policy statement as documented in the Federal Register dated March 17, 1993 (58 FR 14308). This request has been reviewed by our Onsite Safety Committee (OSC) and is determined to be safe.

Questions regarding this submittal may be directed to Mr. Steve Sovick at (412) 393-5211.

Sincerely,

T. P. Noonan
Division Vice President
Nuclear Operations

Attachment

cc: Mr. L. W. Rossbach, Sr. Resident Inspector
Mr. T. T. Martin, NRC Region I Administrator
Mr. G. E. Edison, Sr. Project Manager

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Evaluation Supporting Enforcement Discretion
Beaver Valley Power Station - Unit No. 2
Docket No. 50-412, License No. NPF-73
OT AND OP ΔT SURVEILLANCE EXTENSION

1. The TS or other license conditions that will be violated.

Surveillance Requirement 4.3.1.1.1 requires that surveillance of the reactor trip system instrumentation channels be performed at the frequencies specified in Table 4.3-1. For Table 4.3-1 Functional Unit No. 7 and No. 8, "Overtemperature ΔT " (OTAT), and "Overpower ΔT " (OPAT), respectively, a channel functional test is required quarterly and Technical Specification 4.0.2 permits an extension of the surveillance interval by as much as 25 percent.

2. The circumstances surrounding the situation, including the need for prompt action.

The reactor protection system ΔT temperature loop 2 circuit has been experiencing inadvertent spurious spike signals in the 7300 process control racks for approximately one month (three in the last 30 days). There were three spare cards removed from stock over the last month and were run through the bench calibration process in an effort to eliminate this spiking condition. On Tuesday, December 27, 1994, the troubleshooting efforts resulted in the probable cause of the spurious signals being the lead-lag circuit card. Having isolated the problem in the lead-lag card, it was determined that a detailed bench alignment of the card would be necessary. On Thursday, December 29, 1994, one card was bench aligned and installed and calibrated for system operation. This channel, loop 2, has been returned to operable status; however, a minimum of ten days is necessary to obtain confidence that the inadvertent spiking has been corrected. Parallel with this effort, we are obtaining additional spare cards in the event the current effort is not successful in restoring the loop 2 circuit to operable status and eliminating the inadvertent spiking. However, the lead-lag card has been upgraded and additional testing and calibrating is necessary to establish confidence in the acceptability of the new design before installing the upgraded card in the process racks. The quarterly channel functional test for loop 3, including the 25 percent extension allowed by Specification 4.0.2, is due no later than 1820 hours on December 30, 1994. When performing the surveillance on loop 3, it is necessary to place the channel in a trip condition and should a spurious spike signal occur on the loop 2 circuit actuating the bistable, the trip coincidence would be met and a reactor trip would be initiated. The OPAT channel functional test is performed using the same procedure as the OTAT channel functional test and at the same time; therefore, the OPAT surveillance requirement is also due on December 30, 1994. The calibration procedure requires tripping the same bistables as for the OTAT and, therefore, results in the same risk of an inadvertent reactor trip. A delay in the performance of the channel functional test on loop 3 until the

loop 2 circuit is repaired and operating satisfactorily will avoid the potential for a spurious reactor trip.

3. The safety basis for the request that enforcement discretion be exercised, including an evaluation of the safety significance and potential consequences of the proposed course of action.

The overtemperature AT trip function is provided to ensure the design limit departure from nucleate boiling ratio (DNBR) is met. The OTAT trip function is calculated for each loop in accordance with the equation provided in Note 1 of Technical Specification Table 3.2-1. The total number of channels is three and the channels to trip and minimum channels operable is two, as specified in Table 3.3-1. An evaluation of past test data since December 1992, for the loop 3 circuit indicates no excessive instrument drift or other problems that would indicate an extension of the channel functional test frequency should not be approved. A total of 25 channel functional tests have been completed since December 1, 1992. The results of the tests indicate that in all but one case, the comparators have been found within the required setpoint tolerance. For the one instance, the comparator was out of tolerance in the conservative direction. The circuit has four comparator cards which are checked each time the channel functional test is conducted. The evaluation results demonstrate that the loop 3 circuit can adequately perform its safety function consistent with the design basis accident (DBA) requirements (i.e., a reactor trip signal is initiated in the required setpoint range to ensure the design limit DNBR is not exceeded).

The loop 1 circuit channel functional test was last performed on December 7, 1994, and is due again March 1995. The loop 1 circuit was tested 21 times over the last two years. In all cases, the comparators were found within the required setpoint tolerance. The loop 2 circuit was tested 21 times over the last two years plus one functional test in November 1994 when the setpoints were changed to reflect the results of a setpoint recalculation effort. Of the 21 tests, one comparator was found out of tolerance in the conservative direction (12/22/93), and another comparator was found with six out of ten setpoints out of tolerance in a non-conservative direction (7/6/93). The comparators were restored to the proper setpoint ranges and returned to service. These two circuits continue to be operable within their required surveillance intervals. All three circuits are considered capable of fulfilling their protective function at this time.

As a result, it is concluded that there is a low safety significance and no change to the potential consequences of a design basis accident resulting from an increase in the surveillance frequency interval.

4. Any proposed compensatory measure(s).

Test instrumentation (triggered setpoint voltage recorder) will be installed to monitor loop 2 performance, including the lead-lag card, until confidence in the circuit performance has been established.

This instrumentation will be monitored on four hour intervals. Routine channel checks of the OTAT and OPAT will continue to be checked on a shift basis.

5. The justification for the duration of the noncompliance.

It is requested that enforcement discretion be exercised for a period of fourteen (14) days to re-establish confidence in the loop 2 circuit and perform the loop 3 channel functional test. The loop 3 circuit has been operable as required by satisfying the appropriate surveillance requirements and nothing has changed that might affect its output, as detailed in the response to Item 3 above; therefore, the loop 3 circuit is expected to continue performing its safety function during the requested surveillance interval extension.

6. The basis for the licensee's conclusion that the noncompliance will not be of potential detriment to the public health and safety and that a significant safety hazard is not involved.

Duquesne Light Company has determined that there is no significant safety impact associated with this request for enforcement discretion as it applies to the OTAT and OPAT channel functional test frequency. Extending the loop 3 channel functional test interval is justified based on its operating history as detailed in Item 3 above. Additionally, the other two loops are currently in an operable status. UFSAR Table 15.0-6 lists the various trip functions available to provide protection. As shown, multiple trip functions are available for the transients analyzed. There are no changes to the assumptions related to calculating offsite dose; therefore, there is no potential detriment to public health and safety and no significant safety hazard exists.

7. The basis for the licensee's conclusion that the noncompliance will not involve adverse consequences to the environment.

Accident analysis consequences remain unchanged as a result of this request. Based on operating history, the loop 3 circuit will continue to monitor the condition of the reactor and provide the appropriate protection in accordance with accident analyses assumptions. There are no releases to the environment which are

associated with approval of this request; therefore, this enforcement discretion involves no adverse environmental consequences.

8. A statement that the request has been approved by the facility organization that normally reviews safety issues (Plant Onsite Review Committee, or its equivalent).

This request has been reviewed and found acceptable by the Onsite Safety Committee.

9. Any other information the NRC staff deems necessary before making a decision to exercise enforcement discretion.
 - a. In the event Unit 2 experiences an unplanned shutdown, the loop 3 channel functional test will be completed prior to restart.
 - b. If confidence in loop 2 has not been achieved within fourteen days, Unit 2 will be shut down and the instrument channel will be tested in accordance with technical specification surveillance requirements.