

June 30, 1986

Docket No. 50-412

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Mr. J. J. Carey, Vice President
Duquesne Light Company
Nuclear Group
Post Office Box 4
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Dear Mr. Carey:

Subject: Beaver Valley Unit 2 - SER Backfit Issue 4, Steam Generator
Level Control and Protection

In a letter to you dated November 22, 1985, we requested you to revise the Beaver Valley Unit 2 Final Safety Analysis Report (FSAR) to eliminate the inconsistency of representing main feedwater isolation on a generator high level as part of ESFAS and the plant's protection systems. This revision was necessary to support your position relative to the backfit appeal issue (SER Section 7.3.3.12). In a December 20, 1985 letter, you responded and stated that the requested FSAR revision would be forthcoming in Amendment No. 11.

We have now reviewed your response and Amendment No. 11 to the plant's FSAR and find they do not totally eliminate the inconsistency of representing main feedwater isolation on high steam generator level as a requirement for protection of the plant. We believe that a more comprehensive FSAR revision is needed and have enclosed a discussion of other FSAR sections which we feel should also be revised.

We request your response within 45 days of your receipt of this letter. This information request affects fewer than 10 respondents; therefore, OMB clearance is not required under P.L. 96-511.

Sincerely,

Peter S. Tam, Project Manager
PWR Project Directorate #2
Division of PWR Licensing-A
Office of Nuclear Reactor Regulation

Enclosure:
As stated

cc: See next page

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REQUEST FOR ADDITIONAL INFORMATION

In a letter dated November 22, 1985, we requested DLC to revise the Beaver Valley Unit 2 Final Safety Analysis Report (FSAR) to eliminate the representation of main feedwater isolation on high steam generator level as part of ESFAS and the Protection System. This revision was necessary to support the applicant's position relative to the steam generator level backfit appeal issue.

In a December 20, 1985 letter, the applicant stated that the requested FSAR revision would be forthcoming in Amendment No. 11. We have reviewed the FSAR (including Amendment No. 11) and find that the following sections of the FSAR should also be revised to fully support the position that main feedwater isolation on a high steam generator level signal is not required for protection of the plant and is not part of the plant's ESFAS.

1. Table 15.0-4 includes the high steam generator level as a trip function assumed in the accident analyses. This should be removed from this table and the appropriate accidents reanalyzed.
2. In Section 15.0.8 on page 15.0-11 the following statement is made:
". . . the normally operating systems and components listed in Table 15.0-6 will be available for mitigation of the events discussed in Chapter 15." Table 15.0-6 includes the high steam generator level as available for transient and accident conditions related to a feedwater system malfunction causing an increase in feedwater flow. The high steam generator level actuation should be completely removed from Table 15.0-6 or it should be footnoted that no credit is taken for this trip in the accident analysis. If credit is taken, these accidents should be reanalyzed without this trip.
3. Section 15.1.2, "Feedwater System Malfunctions Causing an Increase in Feedwater Flow," contains statements such as: "Continuous addition of excessive feedwater is prevented by the steam generator hi-hi level trip . . ." and "The feedwater flow resulting from a fully open control valve is terminated by a steam generator hi-hi level trip signal" Statements referring to the steam generator hi-hi level trip signal should be removed from the FSAR, and the analysis performed under Section 15.1.2.2, which currently assumes that the high steam generator level signal terminates this transient, should be replaced by a new analysis that accurately describes the assumptions used including those relating to termination of the transient. The analysis should state explicitly which safety-related equipment is taken credit for in the mitigation of this transient. If termination of the transient is not required for safety, this should be so stated and bases provided. Also, the time sequence of events contained in Table 15.1-1 and all related FSAR figures must also be revised accordingly for the new analysis.
4. Section 7.3.1.1 provides the system description for ESFAS and refers (see page 7.3-2) to Table 7.3-1 and 7.3-2 for additional information pertaining to ESFAS logic and function. In Table 7.3-2 under feedwater isolation, the logic for steam generator high-high water level is discussed. This functional unit should be removed from Table 7.3-2.

5. Section 7.3.1.1 also refers (see page 7.3-2) to Table 7.3-3 for interlocks associated with ESFAS. In Table 7.3-3 high steam generator level is included as "P-14." This interlock should be removed from this table.
6. A functional description of the main feedwater isolation on steam generator high-high water level should be included in the appropriate Chapter 7 section of the FSAR following the guidance of Standard Review Plan, NUREG-0800, and Regulatory Guide 1.70.