

CONSUMERS POWER COMPANY  
Docket 50-255  
Request for Change to the Technical Specifications  
License DPR-20

For the reasons hereinafter set forth, it is requested that the Technical Specifications contained in the Facility Operating License DPR-20, Docket 50-255, issued to Consumers Power Company on February 21, 1991, for the Palisades Plant be changed as described in Section I below:

I. Changes

- A. Change Section 3.1.1.d to read "Both steam generators shall be capable of performing their heat transfer function whenever the average temperature of the primary coolant is above 300°F".
- B. Change the first line of Section 3.1.1.i to read "The PCS shall not be heated or maintained above 300°F...".
- C. Add new Section 3.1.9 "Shutdown Cooling" to the Primary Coolant System (PCS) section and to the Table of Contents.
- D. Change the first line of Section 3.5.1 to read "The primary coolant shall not be heated above 300°F unless the ...".
- E. Change the first line of Section 3.5.2 to read "With the Primary Coolant System at a temperature greater than 300°F, ...".
- F. Change the first line of Section 3.5.3 to read "With the Primary Coolant System at a temperature greater than 300°F ...".
- G. Change the first paragraph of Section 3.7.1 to read "The primary coolant system shall not be heated or maintained at temperatures above 300°F if the following electrical systems are not operable:"
- H. Add new Section 3.7.3.
- I. On Table 3.17.4, Items Nos. 9, 12, 13, 14, 15, and 18, change the Permissible Bypass Conditions column to read "Not required below 300°F".
- J. Change Table 3.24-2, Item 5.a, in the Applicability column to read, "Above 300°F."
- K. In Section 3.25.1, change the end of the sentence of the Limiting Condition for Operation to read "...in accordance with Section 4.21." Also, change the applicability statement in to read: "Reactor coolant temperature >300°F".

- L. Add new surveillance item 14 to Table 4.2.2 (See proposed pages).
- M. Change Note (1) at the end of Table 4.21.1 to read: "(1) Quarterly checks are not required when the PCS temperature is  $\leq 300^{\circ}\text{F}$ ."
- N. Change Table 4.24-2, Item 5a, in the Modes in Which Surveillance Required column to read "Above  $300^{\circ}\text{F}$ ."

## II. Discussion

- A. Section 3.1.1.d is changed to ensure the steam generators are operable at PCS temperatures above  $300^{\circ}\text{F}$  because recent review of the stress analysis of the SDC piping has revealed that  $300^{\circ}\text{F}$  is the highest temperature assumed; and therefore, operability of the SDC is restricted to  $\leq 300^{\circ}\text{F}$ .
- B. Section 3.1.1.i is changed to require the pressurizer heaters to be operable at PCS temperatures above  $300^{\circ}\text{F}$  when the steam generators are the only normal method of cooling the PCS.
- C. New Section 3.1.9 adds shutdown cooling equipment operability requirements for the PCS and the SDC system when fuel is in the reactor and the PCS temperature is  $\leq 300^{\circ}\text{F}$ . The proposed changes integrate various requirements from : a) Combustion Engineering Standard Technical Specifications (NUREG 0212, Revision 3, draft), b) Combustion Engineering Restructured Standard Technical Specifications (May 1989), c) Generic Letter 88-17 (Loss of Decay Heat Removal) and d) specifics of the Palisades Shutdown Cooling system design configuration.

A notable difference between the Standard Technical Specifications and the proposed specification is that Palisades does not have two independent shutdown cooling trains. The SDC system has a common suction line from the PCS to two shutdown cooling pumps which also function as the Low Pressure Safety Injection (LPSI) pumps. The discharge of the pumps enters a common header which in turn splits to each of two heat exchangers and then returns to a common header before again dividing into the four LPSI piping headers to the PCS cold legs. (Reference Palisades FSAR Section 6.1 for further information.)

- D. Section 3.5.1 is changed because new Section 3.1.9 restricts operation of the SDC system to when the PCS temperature is less than or equal to  $300^{\circ}\text{F}$  and makes it necessary for the steam generators to be operable when the PCS temperature is above  $300^{\circ}\text{F}$ .
- E. Section 3.5.2 is changed to remain consistent with Section 3.5.1 to which it refers.

- F. Section 3.5.3 is changed to remain consistent with Sections 3.5.1 and 3.5.2 to which it refers.
- G. Section 3.7.1 is changed to ensure electrical power to equipment associated with steam generator operation and safe shutdown while the PCS is being cooled by the steam generators.
- H. New Section 3.7.3 is added to require electrical power to supply the required shutdown cooling system whenever the PCS temperature is  $\leq 300^{\circ}\text{F}$ .
- I. Item 9 on Table 3.17.4 is changed to provide NUREG 0737 required valve position indication for the PZR code safety relief valves which, in addition to the PORVs, protect the PCS from over pressurization when the steam generators provide cooling. At less than or equal to  $300^{\circ}\text{F}$ , the PORVs provide this protection. Item 12 is changed to provide indication that the PCS coolant remains in single phase (liquid) to insure cooling by steam generators. Items 13, 14, and 15 are changed to ensure indication and actuation of coolant (AFW) flow to the secondary side of the steam generators when the PCS temperature is greater than  $300^{\circ}\text{F}$ . Item 18 is changed to provide reactor vessel water level indication when the steam generators are cooling the PCS and the SDC trains are not available.
- J. Item 5.a on Table 3.24-2 is changed to assure the main steam safety and dump valve discharge line is monitored for gross gamma activity whenever the steam generators are cooling the PCS.
- K. The Applicability Statement in Section 3.25.1 is changed to make the Auxiliary Shutdown Panel operable whenever the SDC system is not available. A typographical error in the Limiting Condition for Operation is corrected. Operability should be demonstrated by surveillance in accordance with Section 4.21.
- L. A new surveillance is added to Table 4.2.2 to verify the shutdown cooling requirements of Section 3.1.9 are being maintained.
- M. Note (1) at the end of Table 4.21.1 is changed to make the quarterly check frequency consistent with the Applicability statement in Section 3.25.1.
- N. Item 5.a on Table 4.24-2 is changed to assure the gross gamma activity monitor is accurate and operable.

### III. Analysis of No Significant Hazards Consideration

The changes requested in this proposal increase the range of PCS temperatures over which the steam generators and associated equipment must be operable and add definition and operability requirements (where none previously existed) for the Shutdown Cooling (SDC) trains. Consumers Power Company finds that activities associated with this proposed technical specifications change involve no significant hazards; and, accordingly, a no significant hazards determination per 10CFR50.92(c) is justified. The following evaluation supports the finding that the proposed changes would not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated.

This change does not involve a significant increase in the probability or consequences of an accident previously evaluated because it only increases the range over which the steam generators and their coolant supply must be operable and identifies and adds operating requirements for the shutdown cooling trains. This change does not affect the material condition of the plant and does reflect current analyses of postulated accidents and operating practices. Therefore, there is no significant increase in the probability or consequences of an accident previously evaluated.

2. Create the possibility of a new or different kind of accident from any accident previously evaluated.

This change does not create the possibility of a new or different kind of accident from any accident previously evaluated because it does not affect the material condition of the plant and reflects current analysis and operating practices.

3. Involve a significant reduction in the margin of safety.

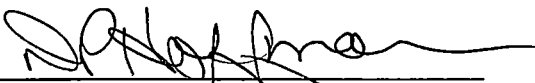
This change does not involve a significant increase in the margin of safety because it does not affect the material condition of the plant, reflects current analysis and operating practices, increases the PCS temperature range over which steam generator cooling is required to be operable and adds operability requirements for the shutdown cooling trains to the technical specifications whereas none existed before.

IV. Conclusion


The Palisades Plant Review Committee has reviewed this Technical Specification Change Request and has determined that this change does not involve an unreviewed safety question. Further, the change involves no significant hazards consideration. This change has been reviewed by the Nuclear Performance Assessment Department. A copy of this Technical Specification Change Request has been sent to the State of Michigan official designated to receive such Amendments to the Operating License.

CONSUMERS POWER COMPANY

To the best of my knowledge, information and belief, the contents of this Technical Specification Change Request are truthful and complete.

By   
 David P Hoffman, Vice President  
 Nuclear Operations

Sworn and subscribed to before me this 26<sup>th</sup> day of September 1991.

  
 Beverly Ann Avery, Notary Public  
 Jackson County, Michigan  
 My commission expires December 7, 1992