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March 13, 1998

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

DOCKET 50-255 - LICENSE DPR-20 - PALISADES PLANT
TECHNICAL SPECIFICATIONS CHANGE REQUEST - AUXILIARY FEEDWATER

A request for a change to the Palisades Auxiliary Feedwater Technical Specifications is enclosed.

The proposed Technical Specifications (TS) change is necessary to allow installation of a plant modification without requiring a plant shutdown. The subject modification will replace the aging battery chargers and vital AC bus inverters. The modification is currently scheduled to be performed shortly after completion of the upcoming refueling outage. The currently scheduled date for completion of that refueling outage is June 2, 1998.

The proposed change would revise Action Statement 3.5.2e to allow two AFW flow control valves in one train to be inoperable for up to 72 hours. Current TS only allow one flow control valve in each train to be inoperable at any time. The proposed Action Statement for two inoperable flow control valves, like the existing one for a single inoperable flow control valve in each train, would only allow continued operation if the opposite AFW train were available to feed the steam generators. The proposed Allowed Outage Time (AOT) is the same as that currently specified for one inoperable flow control valve in each train, or for an inoperable AFW pump.

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Since this TS change will result in significant time and cost savings, it is requested that the NRC reviews be scheduled so that approval may be accomplished to support the June 2, 1998 scheduled completion date for our upcoming refueling outage. It is also requested that the associated license amendment be effective upon approval.

A copy of this letter has been sent to the appropriate official of the State of Michigan.

SUMMARY OF COMMITMENTS

This letter establishes no new commitments and makes no revisions to existing commitments.


Nathan L. Haskell
Director, Licensing

CC Administrator, Region III, USNRC
Project Manager, NRR, USNRC
NRC Resident Inspector - Palisades
Dennis R. Hahn, Michigan Department of Environmental Quality

Enclosures

CONSUMERS ENERGY COMPANY

TECHNICAL SPECIFICATIONS CHANGE REQUEST

To the best of my knowledge, the content of this Technical Specifications change request, which adds an allowance for two AFW flow control valves in the same train to be concurrently inoperable, is truthful and complete.

Nathan L. Haskell

Nathan L. Haskell
Director, Licensing

Sworn and subscribed to before me this 13th day of March 1998.

Alora M. Davis

Alora M. Davis, Notary Public
Berrien County, Michigan
(Acting in Van Buren County, Michigan)
My commission expires August 26, 1999

ENCLOSURE

CONSUMERS ENERGY COMPANY
PALISADES PLANT
DOCKET 50-255

**TECHNICAL SPECIFICATIONS CHANGE REQUEST
AUXILIARY FEEDWATER**

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

It is requested that the Technical Specifications contained in the Facility Operating License DPR-20, Docket 50-255, for the Palisades Plant be changed as described below.

Attachment 1 to this change request contains the proposed TS pages. The changed areas are marked with a vertical line in the margin. Attachment 2 contains the current TS and Bases pages marked to show the proposed changes. These pages show shading for proposed additions and a line drawn through deleted text. Attachment 3 contains a sketch of the battery charger and inverter arrangement. Attachment 4 contains a sketch of the Auxiliary Feedwater System (AFW) arrangement. The proposed changes are described below.

I. The following Changes are Proposed:

It is proposed that Action Statement 3.5.2e be changed to allow any two AFW flow control valves to be inoperable concurrently for up to 72 hours (provided the corresponding redundant flow control valves and a pump in the other train are operable). The existing Action Statements allow: 1) one flow control valve in each train to be inoperable for up to 72 hours (Action 3.5.2e), or 2) one AFW pump to be inoperable for up to 72 hours (Action 3.5.2a). In each of these cases, sufficient components in the other AFW train must be available to assure that AFW flow would be available to both steam generators. The AFW flow control valves fail open on either loss of control air or on loss of electrical control power. In most cases, therefore, an inoperable valve would be capable of passing design flow.

The proposed change would provide an allowance for a third case of inoperable components. It would allow for both flow control valves on the same train to be inoperable for up to 72 hours. As is the case with the current TS allowance for having one AFW pump inoperable, the components in the other AFW train would be available to assure that AFW flow would be available to both steam generators.

In each of the three cases discussed above, 100% of the flow equivalent to that assumed in the safety analyses for one fully operable AFW train would be available to each steam generator, although the ability to cope with an additional single failure affecting AFW would not necessarily be maintained. The proposed change, therefore, does not allow continued plant operation with any reduced level of AFW flow capability from that assumed in the safety analyses. The Allowed Outage Time (AOT) is the same as that allowed by the existing Action Statements 3.5.2a (one inoperable AFW pump) or 3.5.2e (one inoperable AFW flow control valve in each train).

II. Discussion of the reasons for the proposed changes:

The battery chargers servicing 125 VDC buses D10 and D20, and inverters servicing Vital AC buses Y10, Y20, Y30, and Y40 (Attachment 3) are to be replaced after the 1998 refueling outage at the Palisades Plant. The replacement serves to: 1) improve equipment reliability and efficiency, 2) eliminate the challenge associated with parts obsolescence, and 3) remove the chargers and inverters from Maintenance Rule Category (a)(1).

The chargers and inverters, being replaced with state-of-the-art equipment, are as follows:

Division I ("Left")

Battery Charger #1 (ED-15)
 Battery Charger #3 (ED-17)
 Inverter #1 (ED-06)
 Inverter #3 (ED-08)

Division II ("Right")

Battery Charger #2 (ED-16)
 Battery Charger #4 (ED-18)
 Inverter #2 (ED-07)
 Inverter #4 (ED-09)

Their replacement is necessitated by aging, spare parts unavailability and the potential for component failure. The existing equipment has served the plant for approximately 27 years. In more recent years, inadvertent charger output breaker trips have been experienced and inverter output total harmonic distortion has increased beyond the allowance of the manufacturers original specifications.

The replacement is currently planned to take place following startup from the 1998 refueling outage, while the plant is on line. The replacement will be procedurally controlled, making use of TS Action Statements, to assure an orderly and safe implementation. Replacement while the plant is on-line provides economic benefit by saving Consumers Energy Company approximately 14 days of refueling outage time.

The replacement project can be accomplished within the limits of TS, with the plant on line, with the exception of the transfer of a single circuit from the existing inverter to the replacement inverter. The flow controllers associated with two of four AFW flow control valves (CV-0736A and CV-0737A, Attachment 4) are powered from the same circuit breaker (Y20-14) fed from Inverter #2. Powering the flow controllers for both of these valves, in parallel, from one breaker in the Division II ("Right") electrical system complies with our design bases since both valves serve the "Right" AFW channel. Transfer of power for these two AFW flow controllers during the project, from the in-service inverter to a transitional inverter and ultimately to the final replacement inverter, results in deenergizing both AFW valves simultaneously on two separate occasions. The valves fail open on loss of electrical power to their flow controllers.

TS 3.5.1.c requires all AFW flow control valves to be operable when the plant is greater than 300°F. TS 3.5.2.e provides action for one AFW flow control valve in each train to be inoperable, but not two valves in the same train. TS 3.5.3 requires power reduction and plant shutdown if the requirements of TS 3.5.1.c and TS 3.5.2.e are not met. As a result, a TS Change Request is being made to permit continued operation for up to 72 hours if both flow control valves in the same AFW train are inoperable concurrently.

In addition to the information already provided, additional justification serves to support the conclusion that the requested TS change is both necessary and prudent. Throughout the replacement project, the capability to fulfill safety functions will be maintained, as will operating crew awareness of specific plant conditions. Throughout the project, work is conducted on only one of two redundant safety-related electrical divisions at any given time. During the periods of time in which both AFW valves in one train are simultaneously inoperable, manual operation of these valves, and automatic operation of the entire opposite AFW train would be available.

In summary, it is concluded that the proposed TS change will provide additional operational flexibility, without incurring any additional risk.

III. Analysis of No Significant Hazards Consideration

Consumers Energy Company finds that this proposed TS change involves no significant hazards and accordingly, a no significant hazards determination in accordance with 10 CFR 50.92(c) is justified.

Do the proposed changes involve a significant increase in the probability or consequences of an accident previously evaluated?

The proposed change would only alter the allowance for specific AFW flow control valves to be inoperable. It would not affect any operating limits, any plant operating conditions, or the physical capability of any plant equipment. Therefore, it would not affect the probability of any accident previously evaluated.

The proposed change would not reduce the AFW flow capability to the steam generators during operation under the affected Action Statement. It would allow more operational flexibility in plant operation when two AFW flow control valves in the same train were concurrently inoperable. The specified AOT of 72 hours would remain unchanged. Current TS allow continued operation for 72 hours with one of the three AFW pumps inoperable, or with one flow control valve in each train inoperable (provided the corresponding redundant flow control valve and a pump in the other pipe train are operable), but do not allow continued operation with both valves in the same train inoperable. The proposed change would allow any two valves to be inoperable, with the same provision that the corresponding redundant flow control valve and a pump in the other pipe train are operable.

Since, with the proposed change there would be no reduction in the ability to provide AFW flow to either steam generator, operation of the Facility in accordance with the proposed changes would not involve a significant increase in the probability or consequences of an accident previously evaluated.

Do the proposed changes create the possibility of a new or different kind of accident from any previously evaluated?

The proposed changes provide more stringent requirements than previously existed in the TS. The changes do not alter the plant configuration (no new or different type of equipment will be installed) or make changes in the methods governing normal plant operation. The changes do allow different sets of AFW flow control valves to be inoperable, however, these changes retain a consistent level of AFW capability during operation under the Action Statement. Therefore, the changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

Therefore, operation of the Facility in accordance with the proposed TS change would not create the possibility of a new or different kind of accident from any previously evaluated.

Do the proposed changes involve a significant reduction in a margin of safety?

The proposed change would not reduce the AFW flow capability to the steam generators during operation under the affected Action Statement. It would allow more operational flexibility in plant operation when two AFW flow control valves were concurrently inoperable. The specified AOT of 72 hours would remain unchanged.

Therefore, operation of the Facility in accordance with the proposed TS change would not involve a significant reduction in a margin of safety.

III. Conclusion

The Palisades Plant Review Committee has reviewed this TS Change Request and has determined that proposing 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.