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Consumers
Power
Company

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December 1, 1986

Mr James G Keppler, Administrator
Region III
US Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

DOCKET 50-255 - LICENSE DPR-20 - PALISADES PLANT - RESPONSE TO NRC
CONFIRMATORY ACTION LETTER AND INFORMATION REQUEST PURSUANT TO 10CFR50.54(f)

Subsequent to the May 19, 1986 trip at the Palisades Nuclear Plant, the Nuclear Regulatory Commission issued Confirmatory Action Letter CAL-R111-86-002, dated May 21, 1986 directing Consumers Power Company to bring the facility to a cold shutdown condition and to thoroughly investigate both the causes and implications of the plant trip and the status of plant safety systems and balance of plant systems important to safety.

Since that time, thousands of hours have been devoted by Consumers Power Company management and employees in identifying deficiencies and corrective actions through an approach which has been both comprehensive and methodical. This approach has concentrated on three key areas:

1. The identification and correction of equipment deficiencies
2. The development or enhancement of programs designed to prevent the recurrence of equipment deficiencies
3. The development of programs that will provide further assurance of plant reliability and safety.

The identification and correction of known equipment deficiencies has proceeded through the work of the Material Condition Task Force, our internal auditing process, the corrective action process, and our response to audits by external agencies.

The Material Condition Task Force was commissioned by the Vice-President - Nuclear Operations Department to respond to the NRC's Confirmatory Action Letter. As a result of actions taken in response to the Material Condition

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Task Force recommendations, a number of specific issues were raised where system and component performance was deficient when compared to Final Safety Analysis Report (FSAR) specifications. These issues were thoroughly investigated through testing and analysis, and both short and long-term actions were defined to resolve them.

Several other programs to identify and correct equipment deficiencies were also undertaken. A test program was developed and implemented for safety-related pumps to further investigate the generic implications of the Material Condition Task Force findings. We also evaluated the results of audits conducted by both our Quality Assurance (QA) organization and external agencies including the NRC's Safety System Functional Inspection audit findings. To provide even more complete assurance that Plant systems are prepared to fulfill their design functions, a System Functional Evaluation was performed on those systems relied upon to respond to an accident. That evaluation involved a review of plant testing with regard to system specifications included in the FSAR. No significant concerns were identified.

NRC letter dated November 20, 1986, specified that certain additional information be included in Consumers Power Company request for restart. The letter requires a written response signed under oath or affirmation in accordance with 10CFR50.54(f). The information is to include identification of those actions taken prior to startup and scheduling of those actions that will be completed following plant startup.

This letter responds to the 10CFR50.54(f) requirement. It addresses the requested plans and programs that we have implemented to resolve the concerns elaborated in the enclosures of the November 20, 1986, letter.

The format of this letter addresses the specific information requests in the same order as presented in Enclosure (1) and (2) of the NRC letter. Enclosure (1) of this response addresses the nine identified Safety System Functional Inspection issues. Enclosure (2) responds to the specific information requests of the three broad areas of concern: 1) results of inspections, investigations, maintenance, and testing, 2) lessons learned from these activities, and 3) management system, programmatic, and hardware changes made or planned.

Several program enhancements have been put in place to help prevent the recurrence of equipment deficiencies. At the direction of the Material Condition Task Force and Consumers Power Company management, equipment that is important to safe and reliable operation of the Palisades Nuclear Plant is being placed in the preventive maintenance program at an accelerated rate. At the explicit direction of Consumers Power Company management, the plant staff has been and will continue to be purposefully critical in its investigation of root causes of equipment failures. The surveillance test program will be strengthened to improve its ability to accurately characterize the functional capability of equipment. Additionally, an augmented test program has been

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established to test equipment that is not currently tested regularly but that is important to reliable plant operation. This program will supplement the current surveillance testing program. The combination of timely and effective periodic maintenance, improved surveillance testing, and more indepth root cause investigations is intended to minimize the impact of any potential future equipment deficiencies on the operation of Palisades.

While Consumers Power is confident it can safely resume operation of the plant, programs are being developed to provide greater assurance of the reliability and safety of the plant. These programs include the investigation of the generic implications of equipment deficiencies, the development of a configuration management program, and the completion of the Probabilistic Risk Assessment Program.

The investigation of the generic implications of identified equipment deficiencies involve an extrapolation of the root cause(s) of a specific failure to other situations where they might be postulated to occur. Consumers Power Company successfully demonstrated this approach earlier during the current maintenance outage when it discovered pump impeller problems in the Service Water System after having discovered a similar problem in the Low Pressure Safety Injection System.

The Configuration Management Program that we are developing is intended to recreate the design basis of systems, develop or reconstruct design basis documentation, and reconcile this information with plant controlled documentation. A project manager has been appointed and is actively working on the specifics of scope, methodology, and schedule for this program.

We are also performing a Probabilistic Risk Assessment of the Palisades Nuclear plant. A component of this study is a reliability study of all safety related systems. We will use the results of the study to correct any potential additional design related deficiencies that might be identified.

The information provided with this submittal coupled with past actions are indicative of the commitment of Consumers Power Company management to excellence. Prior to the NRC's Confirmatory Action Letter, Consumers Power had already taken steps toward upgrading Palisades into a top performing nuclear power plant. The first steps began with the reorganization of the plant staff in 1984 to focus available Consumers Power Company talent upon improving Palisades performance. In 1985, subsequent to identification of plant material condition and work process problems by Consumers Power Company and The Institute of Nuclear Power Operations (INPO), a Maintenance Order Task Force was convened. Implementation of recommendations made by this task force serve as the cornerstone of our present plant material condition improvement efforts. These included implementation of recommendations for emphasis on the role of systems engineer, the decentralization of planning coordinators, improved maintenance procedures, and improved post-maintenance testing.

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In early 1986 Consumers Power's executive management directed that an Operational Readiness Assessment be performed at Palisades. The assessment included an indepth review of the operations, maintenance, testing, and modification processes and their ability to maintain and support those systems important to safe and reliable plant operations. This effort will be continued in the future as part of the Configuration Management Program.

Because of actions taken previously and, in particular, those of the past six months, Consumers Power Company believes a sufficient depth of knowledge about Palisades' current condition to conclude that the appropriate course of action is to proceed with plant start-up in the near term. We believe that the material provided with this submittal will detail why this is the best course of action for the Nuclear Regulatory Commission and Consumers Power Company.



Frederick W Buckman
Vice President
Nuclear Operations

CC Director, Office of Nuclear Reactor Regulation
Director, Office of Inspection and Enforcement
NRC Resident Inspector - Palisades

Attachments

CONSUMERS POWER COMPANY

Palisades Plant

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RESPONSE TO NRC INFORMATION
REQUEST PURSUANT TO 10CFR50.54(f)

At the request of the Commission and pursuant to the Atomic Energy Act of 1954 and the Energy Reorganization Act of 1974, as amended, and the Commission's Rule and Regulations thereunder, Consumers Power Company submits our response to NRC letter dated November 20, 1986 Pursuant to 10CFR50.54(f) Consumers Power Company's response is dated December 1, 1986

CONSUMERS POWER COMPANY

By


F W Buckman, Vice President
Nuclear Operations

Sworn and subscribed to before me this 1st day of December 1986.


Elaine E Buehrer, Notary Public
Jackson County

My commission expires October 31, 1989