



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATING TO AMENDMENT NO. 93 TO PROVISIONAL OPERATING LICENSE NO. DPR-20
CONSUMERS POWER COMPANY
PALISADES PLANT
DOCKET NO. 50-255

1.0 INTRODUCTION

By letters dated January 10, 1986 and January 14, 1986, the licensee for the Palisades Plant requested an emergency change to the Technical Specifications regarding the maximum acceptable drag force for testing mechanical snubbers. The proposed change increases, from 1% to 2% of rated load, the acceptance criterion for mechanical snubber drag force (break away friction). This requirement is contained in technical specification 4.16.1(e)(1).

2.0 BACKGROUND

The Palisades Technical Specifications require the mechanical and hydraulic shock suppressors (snubbers) to be operable during all modes of operation except cold shutdown and refueling. The shock suppressors are required to be operable to ensure the structural integrity of the reactor coolant system and all other safety related systems during and following a seismic or other event initiating dynamic loads.

One of the surveillance requirements that is required to be performed to demonstrate operability is to physically test a representative sample of the shock suppressors at least once per 18 months during shutdown. The representative sample in the Palisades case is 10% of the total safety-related snubbers in use at the plant. Since there are seven safety-related mechanical snubbers at Palisades, only one needs to be tested per 18 months. One of the acceptance criteria for mechanical snubbers is initiation of free movement of the snubber mechanism under a certain load. The load that is typically used in technical specifications is the load specified by the shock suppressor manufacturer. In the Palisades case, the value of 1% of the rated load is contained in the technical specifications.

The licensee was performing the shock suppressor surveillances during the current outage. Upon further investigation, six tests were performed on the one mechanical snubber. The 1% value was exceeded in three of the six tests. The licensee discovered that the technical specification value of 1% does not match the actual design performance requirement of 2%, as specified in the manufacturer's literature. The licensee subsequently contacted the manufacturer, and the manufacturer confirmed that a drag force limit of 2% of rated load provides an appropriate test acceptance criterion. The licensee applied for the technical specification change on January 10, 1986, and

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determined that the change was needed by February 1, 1986. If the NRC does not act promptly, the licensee will not be able to restart the plant as scheduled because the mechanical snubbers would not be able to be declared operable.

3.0 EVALUATION

The staff believes that the appropriate test force is that force that is specified by the shock suppressor manufacturer. In the Palisades case, the appropriate value is 2% of the rated load. The 1% value currently contained in the technical specifications appears to be an oversight. On this basis, the licensee's proposal is acceptable.

The staff also evaluated the emergency basis for issuing the technical specification change. The licensee applied for the change on January 10, 1986, shortly after the problem was discovered. The licensee states that the change is needed by the criticality date, which is February 1, 1986. The presently predicted day to begin plant heatup is January 27, 1986. Since the snubbers need to be operable in all plant modes except cold shutdown and refueling, the change is needed to permit the plant to heat up without delay attributable to this specification. The staff agrees that the amendment needs to be issued under emergency circumstances as defined in 10 CFR 50.41(a)(5) which states "Where the Commission finds that an emergency situation exists, in that failure to act in a timely way would result in derating or shutdown of a nuclear power plant, it may issue a license amendment involving no significant hazards consideration without prior notice and opportunity for a hearing or for public comment."

4.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission's regulations in 10 CFR 50.92 state that the Commission may make a final determination that a license amendment involves no significant hazards consideration if operation of the facility in accordance with the amendment would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (3) Involve a significant reduction in a margin of safety.

Of the seven mechanical snubbers involved in this change, two are rated at 15,000 lbs. attached to 18 inch feedwater piping and five rated at 6,000 lbs. attached to 12 inch piping from the safety injection tanks. The proposed change increases, from 1% to 2% of rated load, the acceptance criterion for mechanical snubbers drag force (break-away friction). This means a change from 150 lbs. force to 300 lbs. for the 15,000 lb. snubbers and from 60 lbs. force to 120 lbs. for the 6,000 snubbers. This amount of force (i.e., 300 lbs. and 120 lbs.) is insignificant for these substantial piping systems.

In addition, this change in drag force, which allows slower piping movement to accommodate growth and shrinkage during heatup and cooldown, does not affect the lockup capability of the snubber, which provides the support function needed for rapid dynamic loads on the piping system, such as a seismic event.

Since the safety function of the snubber is not affected by this change, the staff concludes that the amendment to Provisional Operating License DPR-20, which implements the 2% drag force requirement, meets the three criteria of 10 CFR 50.92 stated above and, therefore involves no significant hazards considerations.

5.0 STATE CONSULTATION

The State of Michigan was consulted on this matter and had no comments on the determination.

6.0 ENVIRONMENTAL CONSIDERATION

The amendment involves a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or a change to a surveillance requirement. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has made a final no significant hazards consideration finding with respect to this amendment. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR §51.22(c)(9). Pursuant to 10 CFR §51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

7.0 CONCLUSION

The staff has concluded, that: (1) because the amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated, does not create the possibility of an accident of a type different from any evaluated previously, and does not involve a significant reduction in a margin of safety, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations, and the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: January 30, 1986

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