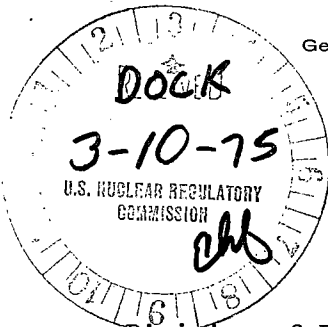


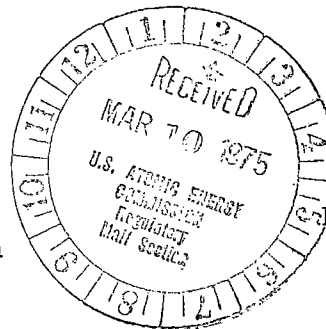
**Consumers
Power
Company**

General Offices: 212 West Michigan Avenue, Jackson, Michigan 49201 • Area Code 517 788-0550



Regulatory

March 6, 1975



Division of Reactor Licensing
US Nuclear Regulatory Commission
Att: Mr. R. A. Purple
Washington, DC 20555

Re: Docket 50-255
License DPR-20
Palisades Plant
Cask Drop

Gentlemen:

Your January 3, 1975 letter requested additional information concerning our evaluation of postulated cask drop accidents submitted with our letter dated August 9, 1974. Items 1 through 3 of your letter are discussed below. Item 4, a Technical Specifications change request, is attached.

Item 1

Provide a statement that when cask drop loads are included in the analysis, the design criteria and design methods for the spent fuel pool and other essential structural systems satisfy the requirements of Document (B) cited above.

Response:

The cask drop analysis, as presented in the report "Evaluation of Postulated Cask Drop Accidents" is based on the design criteria "Design Basis for Structures, Systems and Equipment (except containment structures) for Palisades Plant," FSAR, Appendix A, and satisfies all the pertinent requirements of Document (B) "Structural Design Criteria for evaluating the effects of high energy pipe breaks on Category I structures outside the containment."

Item 2

Furnish all the pertinent information listed in the "Standard Format" in sections cited above, especially the information on loading combination equations, codes, design methods, seismic effects, etc.

Response:

The following information is furnished in accordance with your request and the referenced sections of "Standard Format and Content of

Safety Analysis Reports for Nuclear Power Plants" (Revision 1), in Item (b) of your letter of January 3, 1975.

1. Section 3.3: This section of the standard format deals with the wind and tornado loadings and is not applicable to report "Evaluation of Postulated Cask Drop Accidents" because the cask loading will not take place during extreme wind and tornado conditions.

2. Section 3.5: This section deals with missile protection. Missile in the above-referenced report is the cask itself.

Section 3.5.1: Missile Barriers and Loadings - The report evaluates the safety and integrity of existing structures (barriers) in the travel path of the cask for postulated cask drop accident. The existing structures are described in Section 3.4.2 of the report. The incident missile is the drop of the cask.

The missile loading has been considered in accordance with Bechtel topical report BC-TOP-9(A), Revision 2. Other applicable dead and live loads under postulated cask drop conditions have also been considered according to Palisades design criteria, submitted as Appendix A to FSAR.

Section 3.5.2: Missile Selection - Missile as specified in the report is NFS-4 cask (25 tons nominal weight).

Section 3.5.3: Selected Missile - The design parameters and other pertinent information is discussed in Sections 3.1, 3.3 and 4.1 of report "Evaluation of Postulated Cask Drop Accidents."

Sections 3.5.4 and 3.5.5: Barrier Design Procedure and Missile Barrier Features - Existing structures being the barriers have been designed to Palisades FSAR, Appendix A, and analyzed in accordance with BC-TOP-9(A). The existing structures (barriers) are described in Section 3.4.2 of the report and configuration is shown in Figures 1 - 6.

3. Section 3.7: Seismic Designs - A composite acceleration envelope, north-south and east-west, as given in Section 5.16 of Palisades FSAR, has been used in the calculation.

4. Section 3.8.4: Other Category I Structures - The existing supporting structures, applicable codes and standards, loads and loading combinations, and analysis procedures, etc, have been described in the Palisades Final Safety Analysis Report, Section 5.2 and Appendix A.

The following response considers only the cask containing frame as described in Section 5.2 of the subject report.

Section 3.8.4.1: Description of the Structures - The cask containing frame is shown in Figure 8 of the subject report. It is structurally connected to the building by expansion anchors at the operating floor.

Section 3.8.4.2: Applicable Codes Standards and Specifications - AISC specification for the fabrication and erection of structural steel for building, February 12, 1969 and supplement ABS 1 & 2 have been used in the design. Structural specifications are prepared to cover the areas related to the fabrication and erection of stainless steel frame. The specifications do not deviate from the applicable industry standards and need not be included here.

Section 3.8.4.3: Loads and Loading Combinations - The load on the frame is only because of the postulated tipping of the cask. Other loads are negligible. The load carrying frame elements are simply supported beams.

Section 3.8.4.4: Design and Analysis Procedures - The frame elements have been designed as simply supported beams. The load is transferred to the spent fuel pool and the operating floor slabs.

Section 3.8.4.5: Structural Acceptance Criteria - The frame is designed for structural acceptance criteria as mentioned in response to Section 3.8.4.2.

Section 3.8.4.6: Materials, Quality Control and Special Construction Techniques - Material used follows the ASTM Specification 167, Type 304 or 304L.

Quality Control and construction will be in accordance with the specifications mentioned in response to Section 3.8.4.2.

Section 3.8.4.7: Testing and In-Service Surveillance Requirement - No special testing or in-service surveillance is required for the cask containing frame.

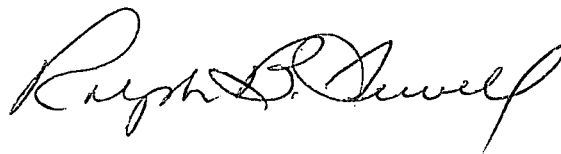
Item 3

Present detailed information on energy absorbing crash pad, if you intend to use one.

Response:

We do not plan to use an energy absorbing crash pad since the present system utilizing a 25-ton cask has been shown to be adequate. See Appendix J, Palisades FSAR.

Yours very truly,



Ralph B. Sewell
Nuclear Licensing Administrator

DAB/ce

CC: JGKepler, USNRC

CONSUMERS POWER COMPANY

Docket No 50-255

Request for Change to the Technical Specifications

License No DPR-20

For the reasons hereinafter set forth, it is requested that the Technical Specifications contained in Provisional Operating License No DPR-20, Docket No 50-255, issued to Consumers Power Company on October 16, 1972 be changed as described below:

I. Changes

A. Add new paragraph, d, to Section 3.13 as follows:

"d. The spent fuel handling cask shall be limited to the 25 ton (nominal) NFS-4 type (Nuclear Fuel Services, Inc, West Valley, New York) or equivalent plus associated lifting gear."

B. Add new paragraph to the Basic of Section 3.13:

"The present evaluation of fuel handling cask accidents has been limited to accidents involving a 25-ton fuel cask. Use of larger casks will require additional accident analysis and appropriate approval prior to use."

C. Add new Item 11 to Table 4.2.2, "Minimum Frequency for Equipment" tests, as follows:

"11. Fuel Building Crane

<u>Test</u>	<u>Frequency</u>	<u>FSAR Section Reference</u>
Functioning	Prior to Each Spent Fuel Shipment	Appendix J, Section 3.2 (as modified by Section 5.1, top of Page 41) and Section 5.3.2.
Inspection	Annual	Appendix J, Section 5.3.2"

II. Discussion

Our submittal, dated March 1975, concerning in-place filter testing adds a new item "c" to Section 3.13 and delete Item 11 from Table 4.2.2. In numbering the item in this request, it was assumed that the Technical Specifications change request concerning filter testing was previously approved.

III. Conclusion

Based on the foregoing, both the Palisades PRC and SARB have concluded that these proposed changes do not involve a significant hazards consideration.

CONSUMERS POWER COMPANY

By R. A. Lamley
R. A. Lamley, Vice President

Sworn and subscribed to before me this 6th day of March 1975.

Sylvia B. Ball
Sylvia B. Ball, Notary Public
Jackson County, Michigan
My commission expires May 18, 1976.