Docket File

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

NOV 24 1978

Docket No. 50-410

Niagara Mohawk Power Corporation
Attn: Mr. Gerald K. Rhode, Vice President
System Project Management
300 Erie Boulevard West
Syracuse, NY 13202

Gentlemen:

SUBJECT: MARK II GENERIC ACCEPTANCE CRITERIA FOR LEAD PLANTS -

Substantial progress was made at our meeting of October 19, 1978, with the Mark II owners toward resolution of the issues related to pool dynamics for the lead Mark II plants and allocation of staff technical resources for review of the generic Mark II Intermediate Program. The purpose of this letter is to summarize the meeting results and to state our intent on future efforts leading to the completion of staff review of these matters.

The most significant developments relate to the method of combining loads and acceptability of the pool dynamics load criteria as discussed below:

- The staff believes that further extension of the approval for SRSS methods to include combining SRV and OBE loads appears possible and certainly worth the investment of staff and applicant resources to review and develop a technically justifiable basis for licensing. We anticipate completion of our review of this matter before the end of the year, at which time we will specify conditions for the use of SRSS in the Mark II program.

- The Mark II owners agreed to adopt the NRC lead plant pool dynamic load acceptance criteria with a limited number of exceptions. This agreement, in several cases, was based on favorable consideration of SRSS methods by the staff. The exceptions and the program to resolve the exceptions on a generic basis are described in Enclosure 1. Resolution of these exceptions to the NRC criteria is to be accomplished before the end of 1978.

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- The Mark II owners identified the Intermediate Program tasks where a priority review by the staff is needed. The staff agreed to schedule a November meeting to discuss staff concerns related to those tasks where sufficient information has been submitted to warrant a meeting (see enclosure 2).

While this course of action will help to maintain the near term licensing schedules for the lead plants, resolution of those exceptions taken by the Mark II owners to the staff generic acceptance criteria would require a substantial portion of the staff's resources. As a result, we anticipate some delay in our overall review of the Intermediate Program Tasks through the end of 1978.

In recent weeks we have received several requests for plant-unique review of tasks already included in the Mark II owner's Intermediate Program. We will not give as high priority to such meetings as we do to generic program meetings. Recognizing the limitations on staff resources, we reiterate the need for the Mark II owners to utilize the generic Intermediate Program to the maximum extent possible. The generic approach to resolution of the pool dynamics issues provides the greatest potential for completing the licensing activities in a timely manner for the plants utilizing Mark II containments.

Sincerely,

Roger S. Boyd, Director
Division of Project Management
Office of Nuclear Reactor Regulation

Enclosures:
1. Exceptions to the NRC Mark II Pool Dynamic Load Acceptance Criteria
2. Priority Intermediate Program Tasks

cc: See next page

Enclosure 1

Exceptions to NRC Mark II Pool Dynamic
Load Acceptance Criteria

1. Pool Swell Elevation (I.B.1.b)*

The staff will identify before October 30, 1978 additional information to be provided by the Mark II owners to support their new methodology described in response to Question 020.68. The Mark II owners will provide a schedule for responding to the NRC's information request.

2. Small Structure Impact Loads (I.B.3.a)

The Mark II owners will notify the staff of a time when they will be ready to discuss and justify their revised methodology.

3. Asymmetric Pool Swell Loads (I.B.5)

The Mark II owners will send a letter report to the staff including the description and justification of a more realistic methodology for this load than the bounding methodology described in the NRC acceptance criteria.

4. SRV Bubble Phasing (II.B.b)

The owners of the lead Mark II plants will propose a time when they will be ready to discuss and justify a generic methodology for establishing bubble phasing for the "T" quencher discharge device.

*Load designation based on Load Summary Table and Acceptance Criteria in letter dated September 14, 1978 from R. S. Boyd to lead Mark II plants.

5. SRV Bubble Frequency (II.B.c)

The owners of the lead Mark II plants will propose a time when they will be ready to discuss and justify a new methodology for defining bubble frequency.

6. LOCA/SRV Submerged Drag Loads (III)

The staff will notify the Mark II owners of an acceptable meeting time with our consultants to discuss the Mark II owners revised methodology. Emphasis will be placed on items III.A.1 and III.A.2 related to the LOCA jet drag load and the "T" quencher zone of influence.

7. Submerged Boundary Load During Vent Clearing (I.A)

The Mark II owners will send a letter report to the NRC clarifying the application of this load to the containment walls. Reference will be made to observed loads on the walls of the 4T facility.

Enclosure 2

Priority Intermediate Program Tasks

*1. Dynamic Single and Multi-Vent Lateral Loads

**2. Submerged Structure Ring Vortex Model

**3. "T" Quencher Submerged Structure Loads

**4. "T" Quencher Air Clearing Loads

*5. Refined Chugging Loads

**6. "T" and Four-Arm Quencher Temperature Limit

**7. New Four-Arm Quencher Load Methodology

*The staff is scheduling a meeting for November 1978 to discuss concerns associated with our review of these items

**The staff has not received sufficient documentation relating to these tasks to initiate a review.

Niagara Mohawk Power Corporation - -

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