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

Docket
50-220

February 28, 1978

All Operating BWR Licensees (Except for Humboldt)

Gentlemen:

The NRC staff has completed its review of the generic Mark I Containment Short Term Program conducted by the Mark I Owners Group and the associated plant-unique information which you provided with respect to your facility's containment system. The results of our review are documented in the staff's "Mark I Containment Short Term Program Safety Evaluation Report," NUREG-0408, December 1977. A copy of this document is enclosed for your information.

Based upon our review, we have concluded that licensed Mark I BWR facilities can continue to operate safely, without undue risk to the health and safety of the public, during an interim period of approximately two years while a methodical, comprehensive Long Term Program (LTP) is conducted. This conclusion has been made based on our determination (1) that the magnitude and character of each of the hydrodynamic loads resulting from a postulated design basis loss of coolant accident (LOCA) have been adequately defined for use in the Short Term Program (STP) structural assessment of the Mark I containment system; and (2) that, for the most probable loads induced by a postulated design basis LOCA, a safety factor to failure of at least two exists for the weakest structural or mechanical component in the containment system for each operating Mark I BWR facility.

As described in Section IV of NUREG-0408, our evaluation of the capability of your facility's Mark I containment system to withstand the recently identified LOCA-related hydrodynamic suppression pool loads indicates that, although each of the structural and mechanical components of your containment system meet the STP structural acceptance criteria (i.e., a safety factor to failure of at least two), the demonstrated safety margins of certain components under these loading conditions is less than that which is necessary to satisfy the requirements of Section III of the ASME Boiler and Pressure Vessel Code. Consequently, we have concluded that the

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demonstrated safety margin of your facility's containment system with respect to such loading conditions does not comply with our current interpretation of "sufficient margin" as prescribed in General Design Criterion (GDC) 50, "Containment Design Basis", of Appendix A to 10 CFR Part 50. For long term operation of your facility, we will require that the structural and mechanical components of your facility's containment system meet the acceptance criteria of the ASME Boiler and Pressure Vessel Code to the maximum extent practicable for the loads and loading combinations identified in the Mark I Containment Long Term Program and approved by the NRC staff.

However, we find that: (1) your facility's containment system design still retains sufficient margin under present conditions to preclude failure and thus provides reasonable assurance of no undue risk to the health and safety of the public, (2) the objective of the Mark I Containment LTP, i.e., to restore the originally intended design safety margins for each Mark I containment system, is acceptable, and (3) the Mark I Owner's Program Action Plan for the LTP is reasonably designed to satisfy the LTP objectives. Therefore, we find that operation of your facility, in conformance with the conditions specified in NUREG-0408, will not endanger life or property or the common defense and security.

In the absence of any safety problem associated with operation of your facility until the LTP is completed, there appears to be no public interest consideration favoring restriction of the operation of your facility. Accordingly, pursuant to 10 CFR Part 50, Section 50.12, you are hereby granted an exemption from GDC-50, with respect to LOCA-related hydrodynamic suppression pool loads, for an interim period until completion of the LTP (approximately two years), provided that the conditions specified in NUREG-0408 and any resulting Technical Specification requirements are maintained. To this extent, this exemption encompasses any related requirements of 10 CFR Part 50, Section 50.55(a), and GDC-1.

A sample FEDERAL REGISTER Notice related to this action is also enclosed The Notice that is filed with the Office of the Federal Register for each individual plant will be provided at a later date.

As discussed in Section III.C. of NUREG-0408, operating and surveillance requirements on drywell/wetwell differential pressure and torus water levels will be incorporated, by license amendment, into your facility Technical Specifications in the near future.

Victor Stello, Jr., Director
Division of Operating Reactors
Office of Nuclear Reactor Regulation

Enclosures:
See Page 3

Enclosures:
1. NUREG-0408, "Mark I Containment Short Term Program Safety Evaluation Report"
2. Federal Register Notice

SAMPLE FEDERAL REGISTER NOTICE

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO.

LICENSEE

NOTICE OF GRANTING AN EXEMPTION FROM THE REQUIREMENTS OF GENERAL DESIGN CRITERION 50, "CONTAINMENT DESIGN BASIS", OF APPENDIX A TO 10 CFR PART 50

The U.S. Nuclear Regulatory Commission (The Commission) has granted an exemption from the requirements of General Design Criterion 50, "Containment Design Basis", of Appendix A to 10 CFR Part 50 to (Licensee) (the Licensee). This exemption relates to the demonstrated safety margin of the Mark I containment system for (Facility Name) for recently identified hydrodynamic supppression pool loads associated with a postulated design basis loss of coolant accident and provides for operation under the conditions specified in the NRC staff's "Mark I Containment Short Term Program Safety Evaluation Report" and under any resulting Technical Specification requirements. To this extent, this exemption encompasses any related requirements of 10 CFR Part 50, Section 50.55(a), and General Design Criterion 1. This exemption is effective as of the date of its issuance.

The Commission has evaluated the demonstrated safety margin of the containment system for (Facility Name) under present

conditions and has concluded that sufficient margin exists to preclude undue risk to the health and safety of the public. This evaluation is documented in the staff's "Mark I Containment Short Term Program Safety Evaluation Report," NUREG-0408, December 1977.

This exemption is granted for an interim period of approximately two years while a more detailed review is conducted. At the conclusion of this review, the design safety margin of the containment system for (Facility Name) will be restored to that which was originally intended at the time (Facility Name) was licensed for operation. The basis for this exemption is set forth in the letter to the licensee granting the exemption, dated February , 1978.

The Commission has determined that the granting of this exemption will not result in any significant environmental impact and that pursuant to 10 CFR Section 51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with this action.

For further details with respect to this action, see (1) the Commission's letter to the licensee dated February , 1978, and (2) the Commission'

"Mark I Containment Short Term Program Safety Evaluation Report," NUREG-0408, December 1977.

These items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D. C. and at the (LPDR) . A copy of item (1) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Operating Reactors. A copy of item (2) may be obtained upon request addressed to the National Technical Information Service, Springfield, Virginia 22161.

Dated at Bethesda, Maryland this _____.

FOR THE NUCLEAR REGULATORY COMMISSION

, Chief
Operating Reactors Branch
Division of Operating Reactors

Niagara Mohawk Power Corporation

cc: Eugene B. Thomas, Jr., Esquire
LeBoeuf, Lamb, Leiby & MacRae
1757 N Street, N. W.
Washington, D. C. 20036

Anthony Z. Roisman
Natural Resources Defense Council
917 15th Street, N. W.
Washington, D. C. 20005

Oswego County Office Building
46 E. Bridge Street
Oswego, New York 13126