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CONTROL NO: 5126

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FROM: Niagara Mohawk Power Corp. Syracuse, N.Y. 13202 Gerald R. Rhode			DATE OF DOC 5-5-75	DATE REC'D 5-10-75	LTR XX	TWX	RPT	OTHER XX
TO: Mr. George Lear			ORIG 1 signed	CC	OTHER	SENT AEC PDR SENT LOCAL PDR		
CLASS	UNCLASS XXX	PROP INFO	INPUT	NO CYS REC'D 1		DOCKET NO: 50-220		

DESCRIPTION: Ltr re our ltrs of 2-15-75 & 4-17-75...furnishing info re relief valve blowdown phenomena & containment hydrodynamic loads & trans the following:

ENCLOSURES: Nine Mile Pt. Unit 1 Containment Design & Operational Effects....  
(1 cy encl. rec'd)

**ACKNOWLEDGED**

**DO NOT REMOVE**

PLANT NAME: Nine Mile Pt. Unit 1

**FOR ACTION/INFORMATION**

DHL 5-13-75

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NIAGARA MOHAWK POWER CORPORATION

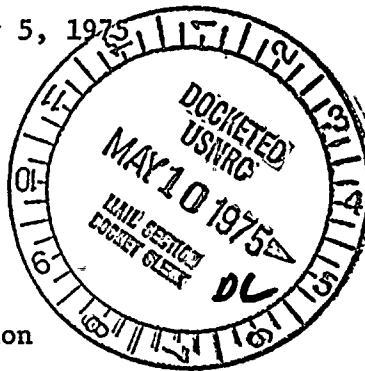
NIAGARA  MOHAWK

300 ERIE BOULEVARD, WEST  
SYRACUSE, N. Y. 13202

Regulatory Docket File



May 5, 1975



Mr. George Lear, Chief  
Operating Reactors Branch #3  
Division of Reactor Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

OFFICE OF COMPT. MASON  
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'75 MAY 6 PM 2:20

U.S. NUCLEAR  
REGULATORY COMMISSION  
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Re: Nine Mile Point Unit 1  
Docket No. 50-220

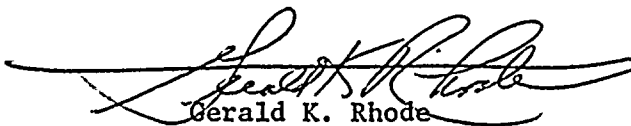
Dear Mr. Lear:

Your letters of February 15, 1975 and April 17, 1975 requested information regarding relief valve blowdown phenomena and containment hydrodynamic loads. A preliminary evaluation, based on recent testing by General Electric Company, indicates that containment design parameters will not be exceeded during discharge of the relief valves. Operating experience, in addition to analytical work performed by General Electric for other facilities, do not suggest any operational safety problems with the Nine Mile Point Unit 1 containment.

The attached report discusses the program and schedule for a more detailed evaluation of the effects described in your letters. Because of the scope of this effort, the schedule suggested in your letters cannot be accommodated. Further details of this tentative program will be submitted by July 5, 1975.

Very truly yours,

NIAGARA MOHAWK POWER CORPORATION



Gerald K. Rhode  
Vice President-Engineering

/sz

Attachment

5126



## NINE MILE POINT UNIT 1

## Containment Design and Operational Effects

5-5-75

This report is a preliminary response to Nuclear Regulatory Commission concerns (1,2) about containment hydrodynamic loads and relief valve blowdown effects. The following program and schedule for Nine Mile Point Unit 1 was devised at a recent meeting with General Electric and other utilities with boiling water reactors.

Initially an evaluation will be made of the hydrodynamic loads on the containment during accident conditions. This analysis will be similar to that performed by General Electric and discussed with the Nuclear Regulatory Commission in an April 10, 1975 meeting. This will be submitted by August 4, 1975.

This evaluation will address the effect of pool swell on the drywell suppression chamber vent system. The submittal will include plan and section drawings of the containment. These will illustrate the structures, equipment and piping which could be subjected to hydrodynamic loads.

The tentative program and schedule as outlined below is proposed as a response to meet the remainder of the concerns addressed in the letters (1,2) from the Nuclear Regulatory Commission.

A. Relief Valve Blowdown

- |  |                    |
|--|--------------------|
| 1. Document relief valve vent clearing model                       | June 30, 1975      |
| 2. Perform impact tests for internal structure shapes              | June 30, 1975      |
| 3. Qualify impact model  | September 30, 1975 |
| 4. Determine need for plant stress test for relief valve discharge | September 30, 1975 |

10/10/77

10/10/77

B. Pool Swell

- |   |                    |
|---|--------------------|
| 1. Calculate pool swell impact loads for Nine Mile Point Unit 1                 | September 30, 1975 |
| 2. Calculate other significant dynamic loads                                    | December 31, 1975  |
| 3. Complete currently planned Mark I pool swell tests                           | December 31, 1975  |
| 4. Confirm calculated loads   | March 31, 1976     |
| 5. Perform stress analyses tests of suppression chamber, internals and supports | September 30, 1976 |
| 6. Combine stresses and compare to plant licensing basis.                       | December 31, 1976  |

(1) Letter dated February 15, 1975 to Mr. Gerald K. Rhode from George Lear.

(2) Letter dated April 17, 1975 to Mr. Gerald K. Rhode from George Lear.



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*Journal of Management Studies*, 19(1), 67-80.