

SEP 1 4 1976

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Docket No. 50-220

Niagara Mohawk Power Corporation
ATTN: Mr. Gerald K. Rhode
Vice President - Engineering
300 Erie Boulevard West
Syracuse, New York 13202

Gentlemen:

The NRC staff has completed its review of Addendum 3 to the Mark I Containment Evaluation Short Term Program Report (NEDC-20989-P) which was submitted to the NRC on August 17, 1976 by General Electric Company on behalf of the Mark I Owner's Group. The Addendum 3 report describes the methods used to determine the vent header and vent pipe pool swell impact loads which were considered in the "Plant Unique Analysis Report For Torus Support System and Attached Piping For Nine Mile Point Nuclear Power Station" dated July 26, 1976.

We have concluded that the methods used to determine plant unique pool swell velocities from the reference plant velocity, as described in Addendum 3, are acceptable; however, we have further concluded that the determination of vent header and vent pipe impact loads using impulse/velocity data obtained from 1/12 scale test facility strain gage measurements is not acceptable since we believe these strain gage measurements do not provide an adequate and reliable data base. Consequently, we require that you provide a supplement to the Nine Mile Point Unit No. 1 plant unique analysis report which considers vent header and vent pipe impact loads which have been determined using the impulse/velocity relationship derived from the Mark III Pressure Suppression Text Facility (PSTF) data.

In order for us to complete our review of the Mark I Containment Short Term Program in a timely manner, we require that you provide your written response by October 1, 1976. One signed original and 39 copies of your response will be necessary.

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Niagara Mohawk Power
Corporation

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SEP 14 1976

If you have any questions regarding the requested information, we would be pleased to meet with you.

Sincerely,

Original signed by

George Lear, Chief
Operating Reactors Branch #3
Division of Operating Reactors

cc: Arvin E. Upton, Esquire
LeBoeuf, Lamb, Leiby & MacRae
1757 N Street, N. W.
Washington, D. C. 20036

Anthony Z. Roisman, Esquire
Roisman, Kessler and Cashdan
1712 N Street, N. W.
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120 E. Second Street
Oswego, New York 13126

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SURNAME >	CPavish	JGuibert:mif	GLear			
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ATTN: Mr. Gerald K. Rhode
Vice President - Engineering
300 Erie Boulevard West
Syracuse, New York 13202

Gentlemen:

In a June 18, 1976 letter from Mr. E. A. Hughes, General Electric Company (GE), to Mr. V. Stello of the NRC staff, GE provided responses on behalf of the Mark I Owner's Group to NRC staff questions on the Mark I Containment Evaluation Short Term Program final report. The response to Containment Systems Branch (CSB) Question No. 9 provided information regarding potential damage to critical torus internal structures and components from missiles generated as a result of post-LOCA pool swell impact loads on the solid catwalk inside the Nine Mile Point Unit No. 1 (NMP-1) suppression pool (torus). In your letter of July 23, 1976 you stated that, although containment integrity would be maintained for the most probable missile impact orientations and target areas, NMPC would remove the solid catwalk at NMP-1 and replace it with a grating catwalk during the scheduled Spring 1977 refueling outage in order to alleviate the potential for damage.

In order to complete our review and evaluation of the continued use of a solid catwalk at NMP-1 until Spring 1977, the NRC staff requires that you provide a study which determines the probability of loss of containment integrity at NMP-1 due to a postulated LOCA and subsequent catwalk missile damage. The study should consider the probability of a pipe break resulting in a LOCA which in turn results in the failure of the solid catwalk. It should also consider the orientations of the catwalk missiles which result in failure of the torus wall, vent pipe and bellows assembly. Since much of the catwalk may fail, the study should include the effects of multiple missiles.

In order to complete our review of the Mark I Containment Short Term Program in a timely fashion, we require that the abovementioned information be provided by October 1, 1976. One signed original and 39 copies of your response will be necessary.

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the same time, the fact that the majority of the respondents were male may have influenced the results.

The authors would like to thank the following people who assisted in the collection of data: Dr. Robert A. Giacalone, Dr. David M. McCabe, Dr. John W. Loeferer, Dr. William J. Miller, Dr. Richard E. Smith, Dr. James C. Spence, Dr. Thomas R. Weaver, and Dr. Robert D. Wood.

Correspondence concerning this article should be addressed to Dr. Robert Giacalone, Department of Management Science, University of Michigan Business School, 701 Tappan Street, Ann Arbor, MI 48106-1234. E-mail: rgia@umich.edu

This research was supported by grants from the National Science Foundation (SBR-9550080) and the Sloan Foundation (1995-1996). The authors also wish to thank the anonymous reviewers for their helpful comments.

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