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R. M. Diggs, DRL
D. Thompson, DRL
R. H. Vollmer, DRL
E. G. Case, DRS

SEP 25 1970

Docket No. 50-220

Niagara Mohawk Power Corporation
ATTN: Mr. Minot H. Pratt
Vice President and
Executive Engineer
300 Erie Boulevard West
Syracuse, New York 13202

Gentlemen:

In reviewing your application dated April 20, 1970, which proposes a power increase for the Nine Mile Point Nuclear Station (NMP), we find that additional information is necessary to complete our evaluation. The specific information requested is described in the enclosure.

In addition, we note that Provisional Operating License (POL) No. DPR-17 for NMP will expire on February 22, 1971, or upon the earlier issuance of a full-term license. Please indicate your plans regarding the application for a full-term license, including your schedule for submission.

Please contact Messrs. C. DeBevec or D. L. Ziemann if you desire additional discussion or clarification of any of the information requested.

Sincerely,

Original signed by
Peter A. Morris

Peter A. Morris, Director
Division of Reactor Licensing

Enclosure:
Request for Additional
Information

cc: Arvin E. Upton, Esquire
LeBoeuf, Lamb, Leiby & MacRae

OFFICE ▶	DRL	DRL	DRL	DRL	DRL	DRL
SURNAME ▶	CDeBevec:sjg/pl	RMDiggs	DLZiemann	DJSkovholt	FSchroeder	PAMorris
DATE ▶	9/25/70	9/25/70	9/25/70	9/25/70	9/25/70	9/25/70

Form AEC-318 (Rev. 9-53) U.S. GOVERNMENT PRINTING OFFICE: 1969—O-364-593

REQUEST FOR ADDITIONAL INFORMATION

PERTAINING TO APPLICATION FOR POWER INCREASE

OF NINE MILE POINT NUCLEAR STATION

1. Our review of the proposed instrumentation modifications indicates that the turbine control valve fast closure scram can be defeated by failure of a single acceleration relay and that physical independence is not apparent for the four redundant pressure switches which respond to turbine first-stage pressure and effect the automatic removal of the bypass at power levels above 45% of design rating. Provide additional information justifying, or modifying, the proposed turbine control valve fast closure scram circuitry and describing the physical independence of the turbine first-stage pressure sensors.

2. The information which you submitted by letter dated July 2, 1970, is insufficient to permit evaluation of the effects of failure of a pressure vessel nozzle safe end on the biological shield or shield plugs. In this regard:

   a. Provide details of construction and appropriate detailed sketches of the biological shield and its load-bearing steel members. Indicate the assumptions made and the calculational methods used to determine the capability of the shield to withstand an internal pressure of 96 psi.

   b. Describe the calculational methods, including the venting assumptions, and the transient pressure distributions, which were used to determine that the maximum pressure rise in the biological shield in the event of a postulated double-ended break of a recirculation line at the safe end is approximately 40 psi.

   c. Provide an analysis of the effects of a break of the pressure vessel recirculation nozzle safe end on the shield wall and on the shield gates at the penetrating pipes. Consider the potential for generating missiles or jet forces which could jeopardize the integrity of the containment shell, or engineered safety system components.

OFFICE ▶						
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In addition, we note that Provisional Operating License (POL) No. DPR-17 for NMP will expire on February 22, 1971, or upon the earlier issuance of a full-term license. ~~To provide~~ For your guidance, ~~in the preparation of an~~ the application for a full-term license, ~~the following suggestions are offered:~~ should include the following information:

Delete To Next Page

1. The application should provide a detailed review of the NMP operating history, including information obtained to ~~confirmation of~~ design bases and objectives, and discussion of the significance of plant problems that have occurred and the remedial actions taken. It should discuss significant changes that have been made to the facility or to operating procedures since the Final Safety Analysis Report was prepared; however, it is not necessary to include extensive details of design and analysis of changes that previously have been submitted to the Commission for approval.

2. The application should discuss your evaluation of the adequacy of your organization during the POL period, including onsite staff, technical support groups and advisory committees.

3. The status of your actions in response to previous comments and recommendations by the AEC and the Advisory Committee on Reactor Safeguards concerning NMP should also be discussed in your application.

may be provided

~~The application may incorporate,~~ where appropriate, ~~the above indicated~~ this information by specific reference to information already submitted or being submitted in support of the currently proposed power increase.

No

~~We request that you provide an early indication of~~ Please indicate your plans regarding the application for a full-term license, or ~~extension of the provisional license,~~ for an extension, including a schedule ~~of~~ for submission. Please contact Messrs. C. DeBevec or D. L. Ziemann if you desire additional discussion or clarification ~~of this matter or of the additional material~~ of any of the information requested, ~~in the enclosure.~~

Sincerely,

Peter A. Morris, Director
Division of Reactor Licensing

Enclosure:
Request for Additional Information

cc: Arvin E. Upton, Esquire
LeBoeuf, Lamb, Leiby & MacRae
1821 Jefferson Place, N. W.
Washington, D. C. 20036

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   b. Describe the ~~bases~~, including the venting assumptions and the transient pressure distributions, ~~and~~ the calculational methods, which were ~~applied~~ used to ~~demonstrate~~ determine that the maximum ~~hypothetical~~ pressure rise in the biological shield in the event of a postulated double-ended break of a recirculation line ~~break~~ at the safe end is approximately 40 psi.

   c. Provide an analysis of the effects of a break of the pressure vessel recirculation nozzle safe end on the shield wall and on the shield gates at the penetrating pipes. Consider the potential for generating missiles or jet forces which could jeopardize the integrity of the containment shell, or engineered ~~safeguard~~ safety system components.

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