

November 3, 1994

Mr. B. Ralph Sylvia
Executive Vice President, Nuclear
Niagara Mohawk Power Corporation
Nine Mile Point Nuclear Station
P.O. Box 63
Lycoming, NY 13093

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SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING PROPOSED LICENSE AMENDMENT TO ALLOW USE OF RANGE 10 ON INTERMEDIATE RANGE MONITORS (IRMs) FOR NINE MILE POINT NUCLEAR STATION UNIT NO. 1 (NMP-1) (TAC NO. M89981)

Dear Mr. Sylvia:

By letter dated July 21, 1994, Niagara Mohawk Power Corporation (NMPC), proposed a license amendment to revise NMP-1 Technical Specifications (TSs) 2.1.2, 3.1.7, and 3.6.2/4.6.2 and associated Bases to allow the use of Range 10 on the IRMs with the reactor protection system low pressure trip for main steam line isolation valve closure not in bypass.

The NRC staff has begun its review of NMPC's July 21, 1994, submittal. However, we have determined that additional information, as identified in the enclosure, is required to complete our review of the submittal. As indicated in the enclosed request for additional information (RAI), our questions address proposed trip setpoints and the analysis of design basis events. NMPC is requested to respond to this RAI within 30 days of receipt of this letter in order for us to complete our review in a timely manner.

This requirement affects one respondent and, therefore, is not subject to Office of Management and Budget review under P.L. 96-511.

Sincerely,

Original signed by

Donald S. Brinkman, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-220

Enclosure: Request for Additional Information

cc w/encl: See next page

DOCUMENT NAME: H:\NM189981.RAI

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

November 3, 1994

Mr. B. Ralph Sylvia
Executive Vice President, Nuclear
Niagara Mohawk Power Corporation
Nine Mile Point Nuclear Station
P.O. Box 63
Lycoming, NY 13093

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING PROPOSED LICENSE
AMENDMENT TO ALLOW USE OF RANGE 10 ON INTERMEDIATE RANGE MONITORS
(IRMs) FOR NINE MILE POINT NUCLEAR STATION UNIT NO. 1 (NMP-1)
(TAC NO. M89981)

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Sincerely,

A handwritten signature in cursive script that reads "Donald S. Brinkman".

Donald S. Brinkman, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-220

Enclosure: Request for Additional Information

cc w/encl: See next page



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B. Ralph Sylvia
Niagara Mohawk Power Corporation

Nine Mile Point Nuclear Station
Unit No. 1

cc:

Mark J. Wetterhahn, Esquire
Winston & Strawn
1400 L Street, NW
Washington, DC 20005-3502

Mr. Richard B. Abbott
Unit 1 Plant Manager
Nine Mile Point Nuclear Station
P.O. Box 63
Lycoming, NY 13093

Supervisor
Town of Scriba
Route 8, Box 382
Oswego, NY 13126

Mr. David K. Greene
Manager Licensing
Niagara Mohawk Power Corporation
Nine Mile Point Nuclear Station
P.O. Box 63
Lycoming, NY 13093

Mr. Louis F. Storz
Vice President - Nuclear Generation
Niagara Mohawk Power Corporation
Nine Mile Point Nuclear Station
P.O. Box 63
Lycoming, NY 13093

Charles Donaldson, Esquire
Assistant Attorney General
New York Department of Law
120 Broadway
New York, NY 10271

Resident Inspector
U.S. Nuclear Regulatory Commission
P.O. Box 126
Lycoming, NY 13093

Mr. Paul D. Eddy
State of New York
Department of Public Service
Power Division, System Operations
3 Empire State Plaza
Albany, NY 12223

Gary D. Wilson, Esquire
Niagara Mohawk Power Corporation
300 Erie Boulevard West
Syracuse, NY 13202

Mr. Martin J. McCormick, Jr.
Vice President
Nuclear Safety Assessment
and Support
Niagara Mohawk Power Corporation
Nine Mile Point Nuclear Station
P.O. Box 63
Lycoming, NY 13093

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Ms. Donna Ross
New York State Energy Office
2 Empire State Plaza
16th Floor
Albany, NY 12223



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REQUEST FOR ADDITIONAL INFORMATION
REGARDING PROPOSED LICENSE AMENDMENT TO ALLOW
USE OF RANGE 10 ON INTERMEDIATE RANGE MONITORS (IRMs) AT
NINE MILE POINT NUCLEAR STATION UNIT NO. 1

1. In Niagara Mohawk Power Corporation's submittal, reference is made to GENE-909-16-0393 and GENE-909-39-1093. These reports provide information on the overlap between average power range monitor (APRM) and IRM ranges and are required for more fully evaluating the proposed changes. Please provide these documents.
2. The proposed TSs require recirculation flow to be greater than 20% for entry into range 10, and also require a rod withdrawal block until recirculation flow exceeds 30%. A minimum flow of 30% is required when reactor power is greater than 20% to satisfy minimum critical power ratio (MCPR) limits, and the proposed rod block is to ensure that power stays near approximately 12% upon entry into range 10 until 30% flow is achieved. It is not clear that the 20% flow requirement together with the rod withdrawal block will offer sufficient margin to MCPR limits for events that may raise power above 30%. Provide supporting analysis to show that the rod block with the minimum flow requirement will offer sufficient margin to MCPR limits. Is the rod withdrawal block in effect for all rods? Does the minimum recirculation flow criteria bound future operating cycles? Also, provide supporting information on existing limits which ensure 30% recirculation flow in "run" mode. Increasing the minimum recirculation requirement to 30% for entry into range 10 would provide increased margin against MCPR limits.
3. The proposed TSs have eliminated the downscale APRM reactor scram, and have reduced the setpoint for downscale APRM rod withdrawal block. The submittal states that justification for the change is provided by the increased overlap between IRM and APRM with the addition of range 10, and the proposed IRM/APRM overlap surveillance. Due to the fact that reliance is being placed on this overlap, the licensee will be required to use range 10 when moving between APRM operation and IRM operation. Provide further information on how the requirement to use range 10 will be incorporated into the TSs. Although operator error events have been evaluated, address the possibility of other events that are affected by the deletion of the APRM scram and describe the outcome.
4. What upscale trips are in place for the APRMs for rod withdrawal block and reactor scram when the mode switch is in other than "run" mode. Specifically, are upscale trips at 15% for reactor scram and 12% for rod withdrawal block in effect for modes other than "run"? Discuss how operation near 40% power in the "startup" mode will be affected by these APRM trip signals.

Enclosure

5. Provide more information on the analysis done, computer codes and methods used for the control rod withdrawal event and rod drop event, along with the resulting fuel and clad conditions. Describe how use of the proposed APRM/IRM setpoints will affect these events, particularly noting peak fuel enthalpy limits with and without the use of range 10.

