

MAY 18 1972

Docket No. 50-220

Niagara Mohawk Power Corporation
ATTN: Mr. Thomas J. Brosnan
Vice President and
Chief Engineer
300 Erie Boulevard West
Syracuse, New York 13202

Change No. 6
License No. DPR-17

Gentlemen:

Your letter dated February 28, 1972, and supplemental information dated April 21, 1972, requested a change in the Technical Specifications of Provisional Operating License No. DPR-17 for the Nine Mile Point (NMP) Nuclear Station Unit 1. The requested change would permit lowering the set points of the solenoid-actuated pressure relief valves and lowering the set point for actuation of the emergency cooling condensers.

These changes to the Technical Specifications are required as a result of a revision of the basic scram reactivity curves that are used for the calculation of NMP systems' response to transients. The basic scram reactivity curves were revised to be consistent with current information and improved analytical modeling of the NMP nuclear characteristics. The proposed reduction in set points of the relief valves and of actuation of the emergency condensers results in approximately the same margin between calculated transient peak pressure and safety valve actuation pressure as previously existed.

Based on the above considerations, we have concluded that the proposed lowering of set points will enhance the safety of operation and that these changes constitute adequate provisions for maintaining the safety margins of operation. We have concluded also that these changes do not present significant hazards considerations not described or implicit in the NMP Safety Analysis Report and that there is reasonable assurance that the health and safety of the public will not be endangered. Accordingly, you are hereby authorized to make the changes to the Technical Specifications of Provisional Operating License No. DPR-17 as set forth in the enclosed Attachment A.

As a result of the revised basic scram reactivity, the control rod drop accident requires reanalysis as was requested in our letter to you dated March 21, 1972. Your response indicated that a complete reanalysis

MAY 18 1972

of this accident would be submitted in the near future. In this connection, we are reevaluating the design features and administrative controls that are intended to preclude the occurrence of a control rod drop accident, in particular, the operability requirements associated with the Rod Worth Minimizer (RWM) are under review. As you know, the intended mode of operation, as described in your Final Safety Analysis Report, is that the RWM be operable during reactor startups to monitor the control rod withdrawal sequence. Further, in your technical specifications, provision is made that in case of occasional inoperability of the RWM, administrative control may be substituted by providing an additional reactor operator to continuously monitor control rod movements.

We understand that you have experienced difficulty in maintaining the RWM in an operable condition. We plan to review your problems and your plans to correct them. Therefore, you are requested to submit within thirty days a description of your experience with operation of the RWM and your plans to correct any deficiencies. The following information should be included:

1. The history of the RWM operability. (Number of startups that the RWM was operable up to 10% of rated power and the total number of reactor startups.)
2. The specific causes of system inoperability.
3. Your assessment of current operability of the RWM.
4. Your plans and schedule to correct any system deficiencies if they exist, such that the RWM can be operating at all times when control rods are being moved and reactor power is less than ten percent of rated power.

This information should be provided with one signed original and thirty-nine additional copies.

Sincerely,

15/
Donald J. Skovholt
Assistant Director for
Operating Reactors
Directorate of Licensing

MAY 18 1972

Enclosure:
Attachment A - Change No. 6 to
Technical Specifications

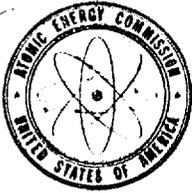
cc w/enclosure:
Arvin E. Upton, Esquire
LeBoeuf, Lamb, Leiby & MacRae
1821 Jefferson Place, N. W.
Washington, D. C. 20036

Distribution

- WDooly, DR
- Compliance (3)
- HShapar, OGC
- NDube, DL (5)
- JRBuchanan, ORNL
- TWLaughlin, DTIE
- PDR
- Local PDR
- ✓ Docket File
- DL Reading
- Branch Reading
- ACRS (16)
- DJskovholt, DL
- TJCarter, DL
- DLZiemann, DL
- CJDeBevec, DL
- RMDiggs, DL
- RBoyd, DL
- RDeYoung, DL
- WSeymour - NY Commerce
- CRoberts, EPA

*Informed Mr. P.A. Best
by Phone 5/19/72
[Signature]*

OFFICE ▶	L:ORB #2	L:ORB #2	L:ORB #2	L:OR	
SURNAME ▶	<i>CD</i> CDeBevec:sjh	RMDiggs	<i>DLZ</i> DLZiemann	<i>DJ</i> DJskovholt	<i>CB</i>
DATE ▶	5/18/72	5/ 172	5/18/72	5/18/72	



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

May 18, 1972

Docket No. 50-220

Niagara Mohawk Power Corporation
ATTN: Mr. Thomas J. Brosnan
Vice President and
Chief Engineer
300 Erie Boulevard West
Syracuse, New York 13202

Change No. 6
License No. DPR-17

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May 18, 1972

of this accident would be submitted in the near future. In this connection, we are reevaluating the design features and administrative controls that are intended to preclude the occurrence of a control rod drop accident; in particular, the operability requirements associated with the Rod Worth Minimizer (RWM) are under review. As you know, the intended mode of operation, as described in your Final Safety Analysis Report, is that the RWM be operable during reactor startups to monitor the control rod withdrawal sequence. Further, in your technical specifications, provision is made that in case of occasional inoperability of the RWM, administrative control may be substituted by providing an additional reactor operator to continuously monitor control rod movements.

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1. The history of the RWM operability. (Number of startups that the RWM was operable up to 10% of rated power and the total number of reactor startups.)
2. The specific causes of system inoperability.
3. Your assessment of current operability of the RWM.
4. Your plans and schedule to correct any system deficiencies if they exist, such that the RWM can be operating at all times when control rods are being moved and reactor power is less than ten percent of rated power.

This information should be provided with one signed original and thirty-nine additional copies.

Sincerely,


Donald J. Skovholt
Assistant Director for
Operating Reactors
Directorate of Licensing

Enclosure and cc: See next page.

Niagara Mohawk Power Corporation - 3 -

May 18, 1972

Enclosure:
Attachment A - Change No. 6 to
Technical Specifications

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

ATTACHMENT A

NIAGARA MOHAWK POWER CORPORATION

LICENSE NO. DPR-17

CHANGE NO. 6 TO TECHNICAL SPECIFICATIONS

<u>Item</u>	<u>Page Number</u>	<u>Change</u>
Specification 3.2.9.a.	page 58	Change the wording from ". . . four of the six . . ." to ". . . five of the six . . .".
Basis statement for 3.2.9.a.	page 58	In the first paragraph, change the set points to 1090, 1095 and 1100 psig. In the second sentence of the second paragraph, change the wording from ". . . only four valves . . ." to ". . . only five valves . . .". Also add as reference, Letter, T. J. Brosnan to Peter A. Morris, dated February 28, 1972, to end of last sentence of second paragraph.
Table 3.6.2.c.	page 102	Under emergency cooling initiation set point, change 1090 psig to 1080 psig.
Basis state- ments for 2.1.2 & 2.1.2.a	page 11	Add reference (10) to 6, 7 & 9 on line 4 and again on the last line. At bottom of page, add as a footnote, reference (10) Letter, T. J. Brosnan, Niagara Mohawk Power Corporation, to Peter A. Morris, Division of Reactor Licensing, USAEC, dated February 28, 1972.
Basis state- ments for 2.1.2 g-h	page 14	Change the last sentence of the first paragraph by adding a reference to Letter, T. J. Brosnan to Peter A. Morris dated February 28, 1972, in the parentheses.
Basis state- ment for 2.1.2.i	page 15	Replace the parenthetical reference with "Letter, T. J. Brosnan to Peter A. Morris dated February 28, 1972".

<u>Item</u>	<u>Page Number</u>	<u>Change</u>
Basis statement for 2.2.2.a.	page 18	Change the second sentence of the second paragraph to read as follows: "Any five of these valves opening at 1090 to 1100 psig will keep the maximum vessel pressure below the lowest safety valve setting as demonstrated in Appendix E-I, 3.11*, The Technical Supplement to Petition to Increase Power Level, and Letter, T. J. Brosnan to Peter A. Morris, dated February 28, 1972."
Basis statement for 3.1.1.c.	page 24	In the last sentence of the first paragraph, add a reference to the "Letter, T. J. Brosnan to Peter A. Morris, dated February 28, 1972".
Basis statement for 3.1.3	page 30	In the third paragraph, change the initiation set point from 1090 psig to 1080 psig. Also in the third sentence, add a reference, Technical Supplement to Petition to Increase Power Level.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

MAY 18 1972

Files (Docket No. 50-220)

THRU: D. L. Ziemann, Chief, ORB #2, DL

D. L. Ziemann
PROPOSED CHANGE NO. 6 TO DPR-17 (NINE MILE POINT UNIT 1 - NIAGARA MOHAWK
POWER CORPORATION)

By letter dated February 28, 1972, Niagara Mohawk requested a change in the Technical Specifications of Provisional Operating License No. DPR-17 that would permit lowering the set points for the relief valves and for actuation of the emergency condensers, and for operation of five, rather than four, relief valves to maintain the same margin between operational transient peak pressure and safety valve set points. These proposed changes are required as a result of a revision in the basic scram reactivity curves that are used to calculate NMP systems' response to transients.

The analyses submitted by Niagara Mohawk on February 28, 1972, in support of the requested changes did not include consideration of the control rod drop accident. Consequently, we requested additional information by letter dated March 21, 1972, and Niagara Mohawk responded with supplemental information submitted by letter dated April 21, 1972. This information did not include the requested reanalysis of a control rod drop accident; however, Niagara Mohawk stated that a complete reanalysis would be provided in the near future. This reanalysis would be submitted by General Electric Company as a topical report applicable to all BWRs. (The topical report was received on May 1, 1972, and is currently being evaluated by the Office of Technical Review.)

Our evaluation of the proposed changes indicates that revision of the basic scram reactivity curves is necessary to reflect current information and improved analytical modeling of NMP nuclear characteristics. The proposed changes to the Technical Specifications consist of lowering the set points of the solenoid-actuated relief valves from the present 1130 psig, 1135 psig, and 1140 psig settings to 1090 psig, 1095 psig, and 1100 psig, lowering the set point for actuation of the emergency condensers from 1090 psig to 1080 psig, and increasing the requirement for operation of five, rather than four, relief valves to maintain the same margin between operational transient peak pressures and safety valve set points. The lowering of set points is a conservative change which enhances the safety of the operation. The change from four to five relief valve operation is to assure adequate capacity for limiting reactor overpressure and does not change the present requirement

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(technical specification 3.1.5.a) for all six valves to be operable for automatic depressurization in the event of a small sized break in the primary coolant system. We, therefore, find these changes acceptable regardless of the status of the control rod drop accident reanalysis.

As an interim measure until a reevaluation of the control rod drop accident has been completed, we would require that the Rod Worth Minimizer (RWM) be in operation below 10% power during startups if we had confidence that RWM operability could be maintained. In telephone discussions on this subject, Niagara Mohawk representatives indicated that the requirement for RWM operating during startups was considered untenable. Niagara Mohawk indicated, in general, that such a requirement would preclude a startup of NMP Unit 1. Therefore, we are reevaluating the design features and administrative controls applicable to RWM operation to identify problems in the system and determine corrective measures to be taken to improve the performance of the system. To this end, the following information is being requested from Niagara Mohawk:

1. The history of the RWM operability. (Number of startups that the RWM was operable up to 10% of rated power and the total number of reactor startups.)
2. The specific causes of system inoperability.
3. Your assessment of current operability of the RWM.
4. Your plans and schedule to correct any system deficiencies if they exist, such that the RWM can be operating at all times when control rods are being moved and reactor power is less than ten percent of rated power.

Based on the above considerations, we have concluded that the proposed changes do not present significant hazards considerations not described or implicit in the NMP Safety Analysis Report and that there is reasonable assurance that the health and safety of the public will not be endangered.



C. J. DeBevec
Operating Reactors Branch #2
Directorate of Licensing

cc: DJSkovholt, DL RMDiggs, DL
TJCarter, DL Compliance (3)
DLZiemann, DL MJinks, DR (2)
CJDeBevec, DL