

UNITED STATES NUCLEAR REGULATORY COMMISSION

In the Matter of )  
 )  
Niagara Mohawk Power Corporation ) Docket No. 50-220  
 )  
Nine Mile Point Unit 1 )

APPLICATION FOR AMENDMENT TO OPERATING LICENSE

Pursuant to Section 50.90 of the Regulations of the Nuclear Regulatory Commission, Niagara Mohawk Power Corporation (NMPC), holder of Facility Operating License No. DPR-63, hereby requests that Section 3.2.3 and the associated surveillance Section 4.2.3 of the Technical Specifications (TS) set forth in Appendix A to that license be amended. The proposed changes have been reviewed in accordance with Section 6.5, "Review and Audit," of the Nine Mile Point Unit 1 (NMP1) TS.

The proposed changes revise the NMP1 TS Section 3.2.3 to reflect NMPC's commitment to Table 4.4 of the Electric Power Research Institute (EPRI) "BWR Water Chemistry Guidelines-1996 Revision" (TR-103515-R1, BWRVIP-29). Sections 3.2.3a and 3.2.3b define new conductivity limits when the reactor water is  $\geq 200$  degrees F and reactor thermal power is  $\leq 10\%$ , and when reactor thermal power is  $> 10\%$ . These sections have also been revised to include the actions required if the limits cannot be met. The new conductivity limit is now  $1 \mu\text{mho/cm}$  compared to the existing limits of  $2 \mu\text{mho/cm}$  and  $5 \mu\text{mho/cm}$ . The chloride ion limit from Section 3.2.3a remains at the same level but it is listed as 100 ppb instead of 0.1 ppm. The chloride ion limit from Section 3.2.3b is changed from 0.2 ppm to 20 ppb. Sulfate ion limits are added to Sections 3.2.3a and 3.2.3b at 100 ppb and 20 ppb, respectively. Section 3.2.3c has been revised to change the maximum conductivity limit from  $10 \mu\text{mho/cm}$  to  $5 \mu\text{mho/cm}$ , to change the maximum chloride ion concentration limit from 0.5 ppm to 100 ppb and 200 ppb (depending on reactor thermal power), and to add the maximum sulfate ion concentration limit of 100 ppb and 200 ppb (depending on reactor thermal power). Section 3.2.3c has also been revised to include the actions required if the limits cannot be met. The existing Section 3.2.3d is being deleted and replaced with the current Section 3.2.3e, which is being revised to describe the shutdown condition as it is stated in the BWR water chemistry guidelines. A new Section 3.2.3e is being added to describe the Limiting Condition for Operation (LCO) action required if the capability to analyze for chloride and sulfate ions is lost. Section 3.2.3f is being added to describe the LCO action required if the capability to analyze for conductivity, chloride ions, and sulfate ions is lost.

The proposed changes revise NMP1 TS Section 4.2.3 to include sulfate ions as a component to be included in the sample analysis and to increase the sampling frequency to daily.

Included in these TS changes are changes to the "Bases for 3.2.3 and 4.2.3 Coolant Chemistry". The Bases has been changed to reflect the purpose of the specification which is to limit intergranular stress corrosion cracking (IGSCC) crack growth rates through the control of reactor coolant chemistry. The Bases describes the NMP1 operating philosophy

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of maintaining average levels for conductivity, chloride and sulfate concentrations over an operating cycle. Operation of the plant within these average values will ensure that the crack growth rate is bounded by the core shroud analysis.

The proposed changes will not authorize any change in the types of effluents or in the authorized power level of the facility in conjunction with this Application for License Amendment. Supporting information and analyses which demonstrate no significant hazards considerations pursuant to 10CFR50.92, are included as Attachment B.

WHEREFORE, Applicant respectfully requests that Appendix A to Facility Operating License No. DPR-63 be amended in the form attached hereto as Attachment A.

NIAGARA MOHAWK POWER CORPORATION

By



John H. Mueller  
Chief Nuclear Officer

Subscribed and Sworn to before me  
on this 16<sup>th</sup> day of July 1998.

Beth A. Menikheim  
NOTARY PUBLIC

BETH A. MENIKHEIM  
Notary Public in the State of New York  
Qualified in Onondaga County No. 4804074  
My Commission Expires August 31, 1998



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