ATTACHMENT A

NIAGARA MOHAWK POWER CORPORATION
LICENSE NO. NPF-69
DOCKET NO. 50-410

PROPOSED CHANGE TO THE TECHNICAL SPECIFICATIONS

Replace page 3/4 1-19 with the attached revised page. This page has been retyped in its entirety with marginal markings to indicate changes to the text.

3/4.1.5 STANDBY LIQUID CONTROL SYSTEM

LIMITING CONDITIONS FOR OPERATION

3.1.5 The standby liquid control system shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 1 and 2

ACTION:

a. In OPERATIONAL CONDITION 1 or 2:

1. With one pump and/or one explosive valve inoperable, restore the inoperable pump and/or explosive valve to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours.

2. With the standby liquid control system otherwise inoperable, restore the system to OPERABLE status within 8 hours or be in at least HOT SHUTDOWN within the next 12 hours.

SURVEILLANCE REQUIREMENTS

4.1.5 The standby liquid control system shall be demonstrated OPERABLE:

a. At least once per 24 hours by verifying that;

1. The temperature of the sodium pentaborate solution in the storage tank is greater than or equal to 70°F.

2. The available volume of sodium pentaborate solution is within the limits of Figure 3.1.5-1.

3. The temperature of the pump suction piping is greater than or equal to 70°F.

ATTACHMENT B

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LICENSE NO. NPF-69
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SUPPORTING INFORMATION AND
NO SIGNIFICANT HAZARDS CONSIDERATION ANALYSIS

INTRODUCTION

Niagara Mohawk proposes to delete the requirement for having the Standby Liquid Control (SLC) System OPERABLE during OPERATIONAL CONDITION 5 (Refueling) with any control rod withdrawn. Currently, Technical Specification 3.1.5 requires the SLC System to be OPERABLE during OPERATIONAL CONDITION 5 with any control rod withdrawn. The SLC System is required to be OPERABLE in order to terminate an inadvertent criticality during core alterations. This analysis will show that the SLC System was not designed to terminate an inadvertent criticality event during core alterations. Adequate controls are also in place to terminate an inadvertent criticality in OPERATIONAL CONDITION 5, without the SLC System, in the unlikely event that one should occur.

DESCRIPTION OF PROPOSED CHANGE

This change will remove the requirement of Technical Specification 3.1.5 for the SLC System to be OPERABLE in OPERATIONAL CONDITION 5 with any control rod withdrawn.

EVALUATION

The purpose of the SLC System is to provide the capability of bringing the reactor, at any time in a fuel cycle, from full power and minimum control rod inventory to a subcritical condition with the reactor in the most reactive xenon free state without taking credit for control rod movement. The amount of boron contained in the SLC System is designed to achieve shutdown assuming the water inventory in the reactor vessel is at normal power operating levels. During refueling operations, the reactor vessel head is removed and the refueling cavity is flooded. With the refueling cavity flooded, the amount of boron in the SLC System may not be sufficient to halt an inadvertent criticality event.

According to General Design Criterion (GDC) 26, two independent reactivity control systems of different design principles shall be provided. However, according to the GDC, only one of the two reactivity control systems must be capable of holding the reactor subcritical under cold conditions. Cold conditions are defined as OPERATIONAL CONDITIONS 4, Cold Shutdown or 5, Refueling. As stated in Updated Safety Analysis Report (USAR) Section 3.1.2.26, "Reactivity Control System Redundancy and Capability," Nine Mile Point Unit 2's compliance with GDC 26 is accomplished with the Control Rod System and the Reactor Recirculation System. The Control Rod System is capable of holding the reactor core

subcritical under cold conditions regardless of the water level in the reactor. The SLC System provides additional backup capability for reactivity control, independent of the normal reactivity control provisions of GDC 26.

10CFR50.62(c)(4) requires that each boiling water reactor have a SLC System to reduce the risks of Anticipated Transient Without Scram (ATWS) events, which can only occur during power operations. The SLC System at Nine Mile Point Unit 2 satisfies this requirement. USAR Section 7.4.1.2, "Standby Liquid Control" states that the SLC System is not required once the reactor has achieved cold shutdown by means of the control rods. In addition, the SLC System design basis does not consider the additional water volume provided by the flooded refueling cavity. Therefore, the proposed Technical Specification is consistent with the licensing basis of Nine Mile Point Unit 2.

In OPERATIONAL CONDITION 5 the reactor is already shutdown with control rods fully inserted in any cell that has fuel in it. In accordance with Technical Specifications and procedural controls, the amount of reactivity present in the core will be constantly reduced during core offloading. This means that the Shutdown Margin (SDM) of the core is the same or greater than its initial value during the entire core offload process.

SDM is analytically determined prior to the reactor core being reloaded into the vessel. The calculated SDM is the acceptance criteria used in Technical Specification Surveillance 4.1.1. This analytical SDM, in conjunction with Technical Specification requirements and procedural controls, assures that an inadvertent criticality will not occur during core reloading activities.

If a control rod is withdrawn in OPERATIONAL CONDITION 5 and SDM has not been demonstrated (i.e. Reload), additional restrictions are placed on the plant by Technical Specifications 3.9.2 and 3.10.3 . In the extremely unlikely event that an inadvertent criticality occurs during this time, these additional restrictions assure the Control Rod System will be automatically actuated by the Reactor Protection System (RPS). Both the Control Rod System and the RPS are highly reliable systems. This conclusion is based upon the following:

1) Both the Control Rod System and the RPS are designed such that no single active failure will prevent them from performing their protective functions.

2) The RPS is a fail safe system such that upon a loss of power it will perform its safety function.

3) The RPS, control rods and control rod drive mechanisms are standard designs provided by General Electric with many years of operation which have demonstrated the soundness of their design and their reliability.

4) The preventative maintenance program of these systems maintains them in a state of high operational readiness.

5) Numerous Technical Specification Surveillances demonstrate the operational readiness of the Control Rod System and the RPS.

6) Each control rod has a dedicated hydraulic control unit scram accumulator to assure timely scrams are achieved.

7) In addition to the hydraulic control unit (HCU) scram solenoid valves at each HCU scram accumulator, the RPS simultaneously actuates backup scram valves in the scram air header to block and vent the scram air header so that the scram valves will open and cause the control rods to scram even if the failure of the scram solenoid valves were to occur.

Based on the above analysis it is concluded that the SLC System is not required to be OPERABLE during OPERATIONAL CONDITION 5, provided that SDM, either demonstrated or analytically determined, is maintained and all required Technical Specification actions and procedural controls are followed. This change is consistent with the requirements in the Improved Standard Technical Specifications, NUREG-1434, issued September 28, 1992.

CONCLUSION

Niagara Mohawk proposes to delete the requirement to have the SLC System OPERABLE during OPERATIONAL CONDITION 5. The basis for these changes are that the SLC System was not designed to terminate an inadvertent criticality event during OPERATIONAL CONDITION 5. SDM, either demonstrated or analytically determined, in conjunction with Technical Specification requirements and procedural controls, will assure that an inadvertent criticality event will not occur during refuel operations. In addition, the RPS and Control Rod Systems will provide protection in the unlikely event that an inadvertent criticality should occur.

Therefore, there is reasonable assurance that the operation of Nine Mile Point Unit 2 in the proposed manner will not endanger the public health and safety, and that issuance of the proposed amendment will not be inimical to our common defense and security.

10 CFR 50.91 requires that at the time a licensee requests an amendment, it must provide to the Commission its analysis using the standards in 10 CFR 50.92 concerning the issue of no significant hazards consideration. Therefore, in accordance with 10 CFR 50.91, the following analysis has been performed:

The operation of Nine Mile Point Unit 2, in accordance with the proposed amendment, will not involve a significant increase in the probability or consequences of an accident previously evaluated.

The purpose of the SLC System is to bring the reactor to and maintain it in a cold shutdown condition from normal power operations following failure to scram with the control rods event. Initiation of the SLC System is not a precursor to any accident. Therefore, inoperability of the SLC System cannot increase the probability of an accident previously evaluated. The SLC System was not designed to provide shutdown capability during OPERATIONAL CONDITION 5. Since the SLC System's purpose is to shut the reactor down following a failure to scram during power operation, the USAR takes no credit for the operability of the SLC System in OPERATIONAL CONDITION 5. Therefore, the SLC System not being operable in OPERATIONAL CONDITION 5 will not involve a significant increase in the consequences of an accident previously evaluated.

The operation of Nine Mile Point Unit 2, in accordance with the proposed amendment, will not create the possibility of a new or different kind of accident from any accident previously evaluated.

This request does not involve a physical change in any system's configuration and no new modes of operation are introduced. The SLC System's only purpose is to mitigate the consequences of a failure to scram during power operation; it neither causes nor prevents an accident from occurring. Furthermore, in OPERATIONAL CONDITION 5 the SLC System has no analyzed function. Therefore, this change will not create the possibility of a new or different kind of accident from any previously evaluated.

The operation of Nine Mile Point Unit 2, in accordance with the proposed amendment, will not involve a significant reduction in a margin of safety.

The purpose of the SLC System is to bring the reactor to and maintain it in a cold shutdown condition from normal power operations following a failure to scram during power operations. Initiation of the SLC System is not designed to terminate an inadvertent criticality during OPERATIONAL CONDITION 5. SDM, either demonstrated or analytically determined, in conjunction with Technical Specifications and procedural controls, will assure that an inadvertent criticality event will not occur during refueling operations. In addition, the RPS and Control Rod System, which are extremely reliable, will provide protection in the unlikely event that an inadvertent criticality does occur. Therefore, this change will not involve a significant reduction in a margin of safety.

NRC CORRESPONDENCE APPROVAL FORM

PLANT #: 2 APPLIES TO OTHER UNIT? ___ YES X NO

SUBJECT: 2LC T.S. AMENDMENT DUE DATE: 3/22/93

PREPARED BY: MIKE CARSON (SM 7470) APPLICABLE NCTS NO.: New: ___ Closing: ___

REFERENCE: T.S. 3.1.5

ENGINEERING AND LICENSING REVIEW	Signature
✓ NRC Project Manager	
✓ Supervisor Licensing Support	
___ Manager Technology Services	
___ Design Engineer	
✓ Engineering Supervisor	
✓ Manager Nuclear Engineering	
Other (Specify) ___	
___	

SITE REVIEW	Signature
✓ Plant Manager	3/17/93
___ Manager Maintenance	
✓ Manager Technical Support	
✓ Manager Operations	
✓ SORC Review	
✓ Tech Review	
✓ SRAB Review	
Other (Specify) ___	
___	
___	
___	

FINAL REVIEW	Signature
✓ System Attorney	
✓ Manager Licensing	
✓ Proofreader	

Comments ___

DISPOSITION

___ NCTS Forms Attached

___ N/A No new commitments made or followup actions required.

___ FSAR Change Require. LDCN # ___

___ Mod Work Request Generated.

KEYWORDS (For Records Mgmt.) ___

NRC CORRESPONDENCE APPROVAL FORM

PLANT #: 2 APPLIES TO OTHER UNIT? __ YES X NO

SUBJECT: SLC T.S. AMENDMENT DUE DATE: 3/22/93

PREPARED BY: MIKE GARSON (SN 2470) APPLICABLE NCTS NO.: New: _____ Closing: _____

REFERENCE: T.S. 3.1.5

ENGINEERING AND LICENSING REVIEW

		Signature
✓	NRC Project Manager	
✓	Supervisor Licensing Support	
	Manager Technology Services	
	Design Engineer	
✓	Engineering Supervisor	
✓	Manager Nuclear Engineering	
	Other (Specify) _____	

SITE REVIEW

		Signature
✓	Plant Manager	
	Manager Maintenance	
✓	Manager Technical Support	
✓	Manager Operations	
✓	SORC Review	
✓	Tech Review	
✓	SRAB Review	
	Other (Specify) _____	

FINAL REVIEW

		Signature
✓	System Attorney	Per Ok (e-mail)
✓	Manager Licensing	
✓	Proofreader	

Comments _____

DISPOSITION

____ NCTS Forms Attached
____ N/A No new commitments made or followup actions required.
____ FSAR Change Require. LDCN # _____
____ Mod Work Request Generated.

KEYWORDS (For Records Mgmt.) _____

NRC CORRESPONDENCE APPROVAL FORM

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SUBJECT: SLC T.S. AMENDMENT DUE DATE: 3/22/93

PREPARED BY: MIKE CARLSON (SM 7470) APPLICABLE NCTS NO.: New: ___ Closing: ___

REFERENCE: T.S. 3.1.5

ENGINEERING AND LICENSING REVIEW

		Signature
✓	NRC Project Manager	
✓	Supervisor Licensing Support	
	Manager Technology Services	
	Design Engineer	
✓	Engineering Supervisor	
✓	Manager Nuclear Engineering	Comments (Resolved) 3/16/93
	Other (Specify) ___	
	___	

SITE REVIEW

		Signature
✓	Plant Manager	
	Manager Maintenance	
✓	Manager Technical Support	
✓	Manager Operations	
✓	SORC Review	
✓	Tech Review	
✓	SRAB Review	
	Other (Specify) ___	
	___	
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FINAL REVIEW

		Signature
✓	System Attorney	
✓	Manager Licensing	
✓	Proofreader	

Comments ___

DISPOSITION

___ NCTS Forms Attached

___ N/A No new commitments made or followup actions required.

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___ Mod Work Request Generated.

KEYWORDS (For Records Mgmt.) ___

NIAGARA MOHAWK

NIAGARA MOHAWK POWER CORPORATION/301 PLAINFIELD ROAD SYRACUSE, N.Y. 13212/TELEPHONE (315) 474-1511

Mike - A few comments
CARSON

RBA 3/16/93

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FROM: MIKE CARSON

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301 PLAINFIELD ROAD
SYRACUSE, NEW YORK 13212

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NRC CORRESPONDENCE APPROVAL FORM

PLANT #: 2 APPLIES TO OTHER UNIT? ___ YES X NO

SUBJECT: SLC T.S. AMENDMENT DUE DATE: 3/22/93

PREPARED BY: MIKE CARSON (SA 7470) APPLICABLE NCTS NO.: New: ___ Closing: ___

REFERENCE: T.S. 3.1.5

ENGINEERING AND LICENSING REVIEW

		Signature
✓	NRC Project Manager	Comments [illegible] 3/18/93
✓	Supervisor Licensing Support	
___	Manager Technology Services	
___	Design Engineer	
___	Engineering Supervisor	
✓	Manager Nuclear Engineering	
___	Other (Specify) ___	

SITE REVIEW

		Signature
✓	Plant Manager	
___	Manager Maintenance	
✓	Manager Technical Support	
✓	Manager Operations	
✓	SORC Review	
✓	Tech Review	
✓	SRAB Review	
___	Other (Specify) ___	

FINAL REVIEW

		Signature
✓	System Attorney	
✓	Manager Licensing	
✓	Proofreader	

Comments ___

DISPOSITION

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___ N/A No new commitments made or followup actions required.
___ FSAR Change Require. LDCN # ___
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KEYWORDS (For Records Mgmt.) ___