

ATTACHMENT A

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

Proposed Changes to Technical Specifications

Replace existing page 3/4 3-18 with the attached revised page 3/4 3-18. This page has been retyped in its entirety with marginal markings to indicate the change.

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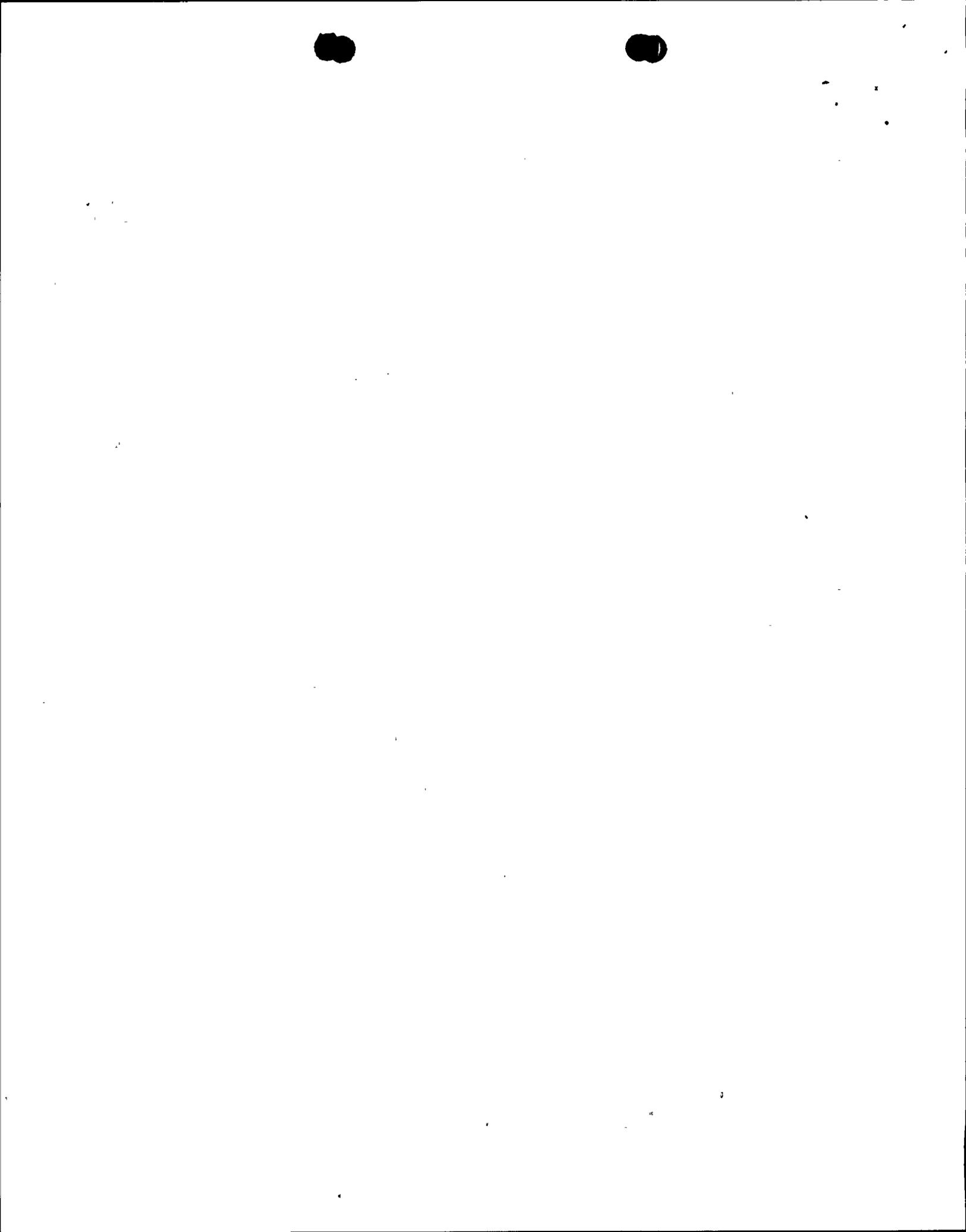
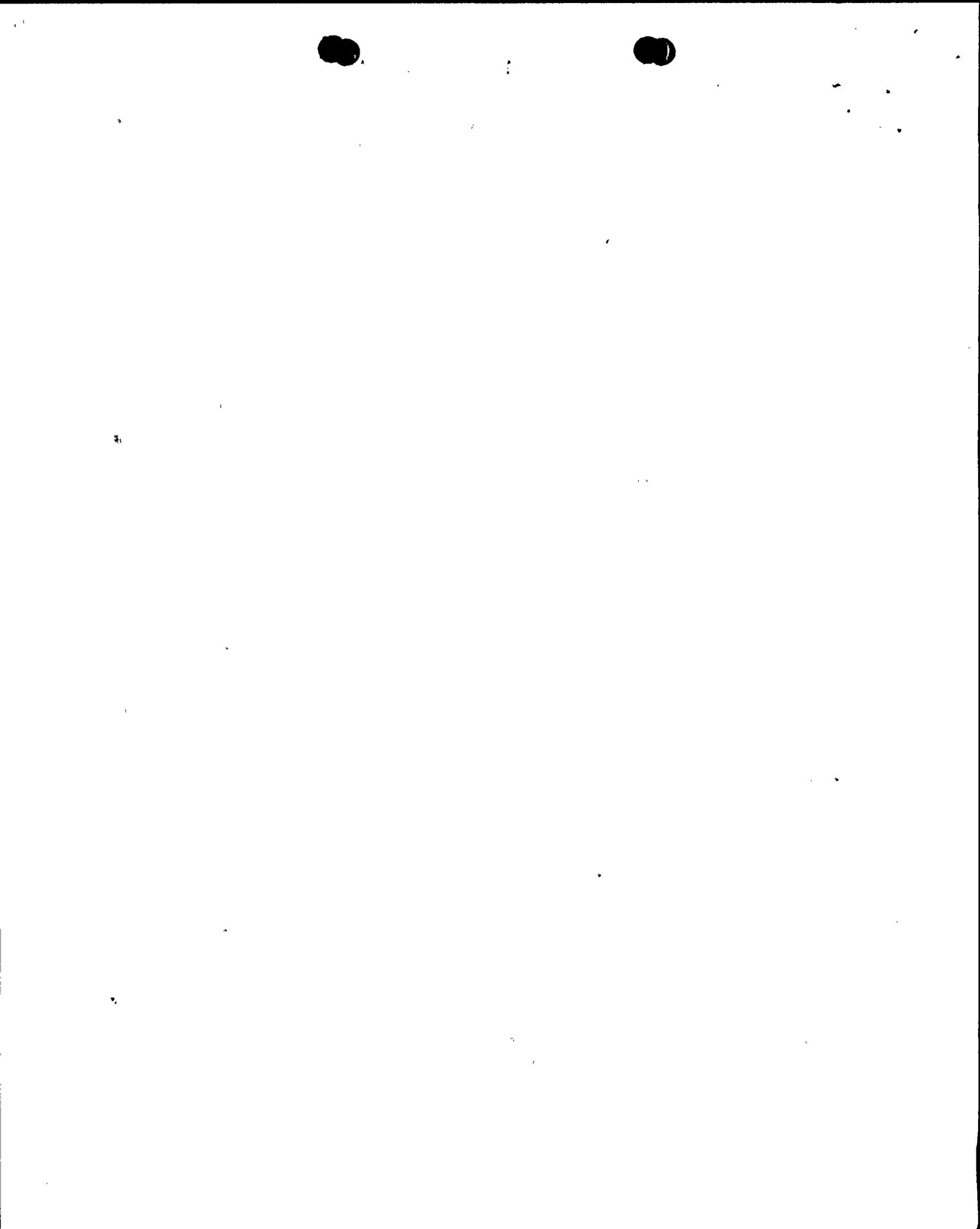


TABLE 3.3.2-2 (Continued)

ISOLATION ACTUATION INSTRUMENTATION SETPOINTS

<u>TRIP FUNCTION</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
1. <u>Primary Containment Isolation Signals (Continued)</u>		
i. RWCU System		
1) Δ Flow - High	≤ 150.5 gpm	≤ 165.5 gpm
2) Δ Flow - High, Timer	≤ 45 sec	≤ 47 sec
3) Standby Liquid Control, SLCS, Initiation	NA	NA
j. RWCU Equipment Area Temperature		
1) Pump Room A Temperature - High	≤ 135°F	≤ 144.5°F
2) Pump Room B Temperature - High	≤ 150°F	≤ 159.5°F
3) HX Room Temperature - High	≤ 135°F	≤ 140.5°F
k. Reactor Building Pipe Chase		
1) Azimuth 180° (Upper), Temperature - High	≤ 135°F	≤ 144.5°F
2) Azimuth 180° (Lower), Temperature - High	≤ 135°F	≤ 140.5°F
3) Azimuth 40°, Temperature - High	≤ 135°F	≤ 140.5°F
l. Reactor Building Temperature - High	≤ 130.2°F	≤ 134°F
m. Manual Isolation Pushbutton [NSSSS]	NA	NA
2. <u>RCIC Isolation Signals</u>		
a. RCIC Steam Line Flow - High, Timer	≥ 3 sec, < 13 sec	13 sec
b. RCIC Steam Supply Pressure - Low	≥ 75 psia	≥ 70 psia
c. RCIC Steam Line Flow - High	≤ 167.1 in. H <sub>2</sub> O	≤ 175.6 in. H <sub>2</sub> O



## ATTACHMENT B

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

#### SUPPORTING INFORMATION AND SIGNIFICANT HAZARDS

##### Introduction

The steam supply line to the Nine Mile Point Unit 2 Reactor Core Isolation Cooling (RCIC) system isolates on high steam flow. The setpoint for this isolation signal, designated as "RCIC Steam Line Flow-High," is given in Table 3.3.2-2 of the Unit 2 Technical Specifications, "Isolation Actuation Instrumentation Setpoints." See Item 2.c on this table.

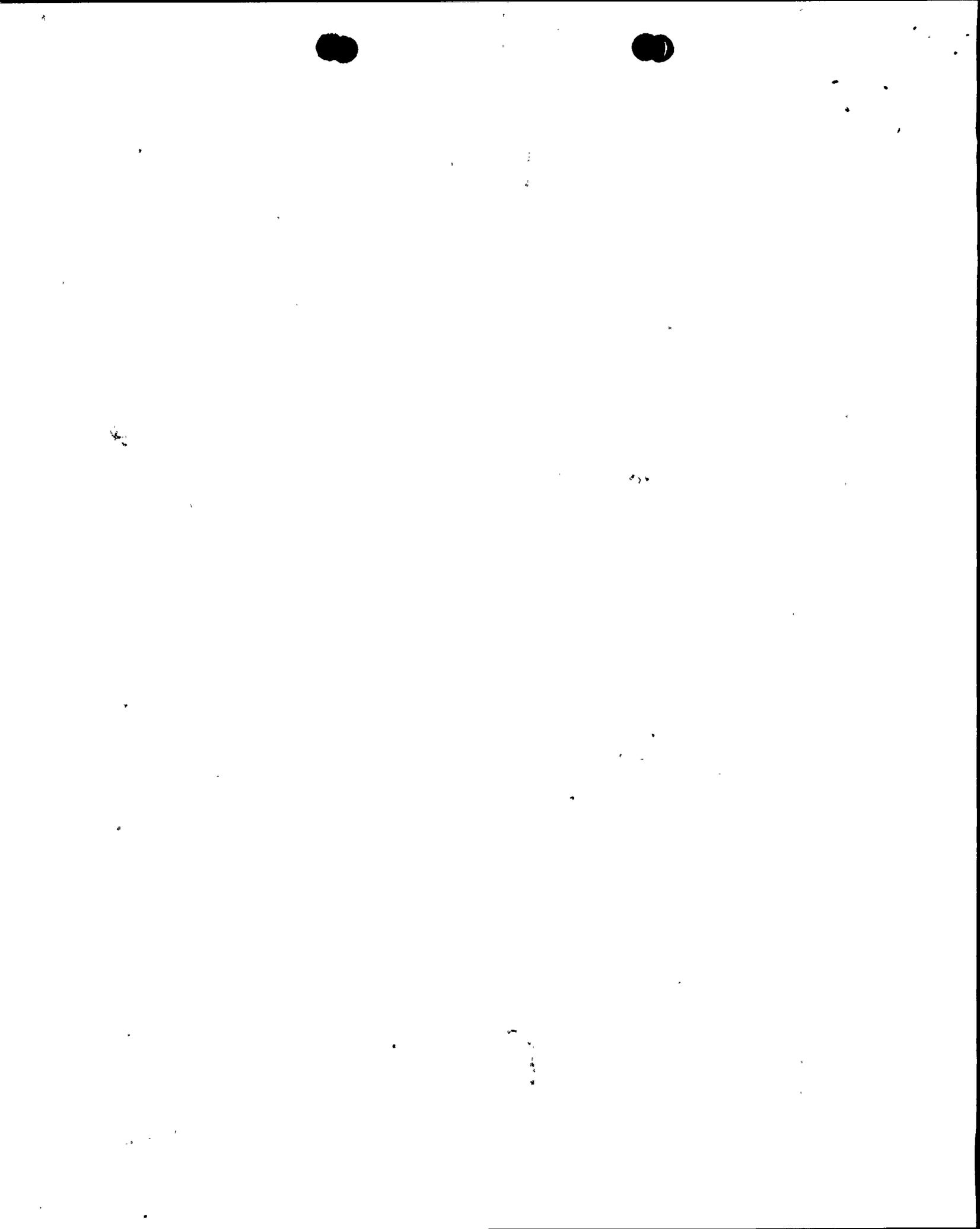
The initial setpoint specified in the Technical Specifications for RCIC Steam Line Flow-High was preliminary (see footnote "\*\*\*" on page 3/4 3-19) and was based on the original General Electric design specification. Due to plant-unique instrumentation characteristics, the setpoint and Technical Specification Allowable Value require adjustment based on system testing. Per footnote "\*\*\*" in Table 3.3.2-2, page 3/4 3-19, the actual setpoint is determined during the Startup Test program and submitted to the NRC within 90 days of determination.

##### Discussion

The RCIC steam line isolation system is designed in conformance with GDC54, "Piping Systems Penetrating Containment." The portions of RCIC and Leak Detection System (LDS) which affect automatic isolation of leakage are designed to IEEE 279-1971, "Criteria for Protection Systems for Nuclear Power Generation Stations."

The instruments used to monitor the flow in the RCIC line, shown on FSAR Figure 7.6-1, are differential pressure transmitters N083A and B and differential pressure switches N683 (N690) A and B. These instruments are part of the LDS which is discussed in FSAR Section 5.2.5. The analytical limit for the isolation signal from these instruments is the differential pressure across a flow device equivalent to 300 percent of the steady-state steam flow at rated conditions. The basis for the analytical limit is discussed in FSAR Section 5.4.6.1.1.

The RCIC steam line penetrates the Reactor Coolant Pressure Boundary (RCPB) by branching off one of the main steam lines between the reactor vessel and the Main Steamline Isolation Valve (MSIV). This line has two automatic motor-operated isolation valves; one located inside and the other outside the primary containment. An automatic motor-operated inboard RCIC isolation bypass valve is used to equalize the line pressure across the inboard isolation valves and warm up the downstream line. These valves are collectively designated as the "Group 10" valves and isolate upon receipt of the RCIC Steam Line Flow-High signal.



## Discussion (continued)

The testing associated with this system, contained in Power Ascension Procedure No. N2-SUT-14-1, Rev. 2, is complete. Niagara Mohawk Nuclear Engineering, through General Electric, has completed its evaluation of the test data, and has proposed new values for the trip setpoint and allowable value specified in the Technical Specifications.

The differential pressure was determined by test with the system at normal operating conditions (reactor vessel narrow range pressure at 959 psig, RCIC flow at 615 GPM, and RCIC pump discharge pressure at 1117 psig). To determine the differential pressure corresponding to 100% rated flow, the test value was adjusted for maximum steam flow, steam density at maximum flow, and the differential pressure at zero flow. The differential pressure equivalent to 300% rated flow was then computed based on this 100% rated flow value.

The Technical Specification Allowable Value and Trip Setpoint were calculated based on the analytical limit at the 300% rated flow condition. Allowances were made for drift, instrument accuracy and calibration accuracy in accordance with Regulatory Guide 1.105. The new values for RCIC Steam Line Flow-High are:

	<u>NEW VALUES</u>	<u>OLD VALUES</u>
· Trip Setpoint	≤ 167.1 in. H <sub>2</sub> O	≤ 184.5 in. H <sub>2</sub> O
Allowable Value	≤ 175.6 in. H <sub>2</sub> O	≤ 193.0 in. H <sub>2</sub> O

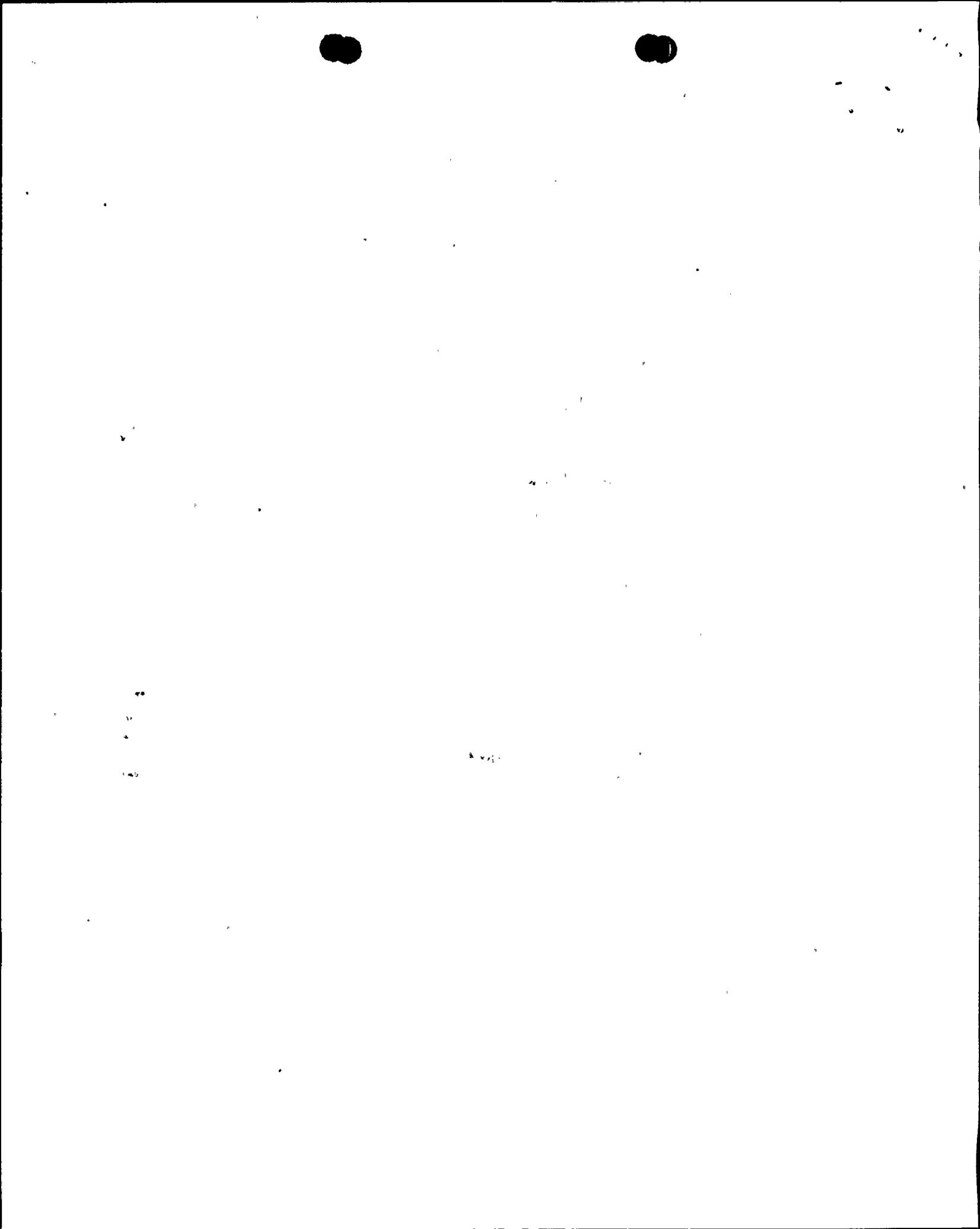
## Conclusion

Nine Mile Point Unit 2 can be safely operated with the proposed Technical Specification values. A required Trip Setpoint of less than or equal to 167.1 in. H<sub>2</sub>O assures that the setpoint will not exceed the Allowable Value during the surveillance interval. The Allowable Value, in turn, assures that sufficient margin exists below the analytical limit to account for accuracies, uncertainties, and dynamic responses.

The proposed setpoint will not adversely impact the reliability of the RCIC system nor result in inadvertent isolation of the RCIC system when it is called upon to perform. The proposed setpoint assures that a RCIC steam line break will be detected and isolated without impacting the operation of other safety systems or the safe shutdown of the plant.

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 RCIC Steam Line break analysis assumes system isolation when steam flow reaches 300% of rated steam flow. This is in accordance with the leak detection and isolation requirements of GDC 54. This change to the Technical Specification assures that the as-built plant is in agreement with the design basis. Revising the setpoint to the as-built conditions equivalent to the 300% rated flow value assures that a RCIC steam line break will be detected and isolated as designed without impacting the qualification or operation of other safety systems or safe shutdown of the plant. The new setpoint is conservative relative to the old setpoint. In summary, this change will not involve a significant increase in the probability or 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 previously evaluated.

The reactor building response to previously evaluated accidents remains within previously assessed limits of temperature and pressure. Further, all safety-related systems and components remain within their applicable design limits. Thus, system and component performance is not adversely affected by this change, thereby assuring that the design capabilities of those systems and components are not challenged in a manner not previously assessed so as to create the possibility of a new or different kind of accident.

In addition, since the design basis for RCIC system isolation has not changed, the environmental qualification of plant equipment is not adversely affected by this amendment, further assuring that components are not challenged in a manner not previously assessed. In summary, the proposed change does not create the possibility of a new or different kind of accident from any previously assessed.

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 proposed change will not cause existing Technical Specification operational limits or system performance criteria to be exceeded. The proposed change ensures that the system design requirements are met. Allowances for instrument drift, instrument accuracy, and calibration capability have been maintained in accordance with Bases Section B3/4.3.2. Therefore, the proposed change does not result in a significant reduction in a margin of safety.

