

ATTACHMENT A

NIAGARA MOHAWK POWER CORPORATION

DOCKET NO. 50-410

NPF-69

Proposed Changes to the Technical Specifications

Replace existing pages 3/4 3-72 and 3/4 3-73 with the attached revised pages. These pages have been retyped in their entirety with marginal markings to indicate changes to the text.

TABLE 3.3.7.2-1

## SEISMIC MONITORING INSTRUMENTATION

INSTRUMENTS AND SENSOR LOCATIONS		MEASUREMENT RANGE	MINIMUM INSTRUMENTS OPERABLE
1.	Triaxial Time-History Accelerographs and Trigger		
a.	Reactor Bldg. Mat. El. 175'-0"	0 $\pm$ 1.0 g	1
b.	Reactor Bldg. Refueling Floor El. 353'-10"	0 $\pm$ 1.0 g	1
c.	Control Bldg. Mat. El. 214'-0"	0 $\pm$ 1.0 g	1
2.	Triaxial Peak Accelerographs		
a.	Diesel Generator Bldg. Service Water Piping	0-5 g*	1
b.	Prim. Cont. High Pr. Core Spray Piping	0-10 g*	1
c.	Prim. Cont. Reactor Pedestal	0-10 g*	1
3.	Triaxial Seismic Switches		
	Reactor Bldg. Mat. El. 175'-0"	0.025-0.25 g (Adjustable)	1**
4.	Triaxial Response-Spectrum Recorders		
a.	Reactor Bldg. Mat. El. 175'-0"	0 $\pm$ 2 g*	1**
b.	Prim Cont. RHR Piping Pene. El. 294'-6"	0 $\pm$ 2 g*	1
c.	Reactor Bldg. Refueling Fl. El. 353'-10"	0 $\pm$ 2 g*	1
d.	Control Bldg. Mat. El. 214'-0"	0 $\pm$ 2 g*	1

\* Calibration required to be for the range:  $\pm$  1g.

\*\* With control room annunciation.

TABLE 4.3.7.2-1

SEISMIC MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENTS AND SENSOR LOCATIONS</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u>
1. Triaxial Time-History Accelerographs and Trigger			
a. Reactor Bldg. Mat. El. 175'-0"	M*	SA	R
b. Reactor Bldg. Refueling Fl. El. 353'-10"	M*	SA	R
c. Control Bldg. Mat. El. 214'-0"	M*	SA	R
2. Triaxial Peak Accelerographs			
a. Diesel Gen. Bldg. Service Water Piping	NA	NA	R**
b. Prim. Cont. High Pr. Core Spray Piping	NA	NA	R**
c. Prim. Cont. Reactor Pedestal	NA	NA	R**
3. Triaxial Seismic Switches			
Reactor Bldg. Mat. El. 175'-0"	M***	SA	R
4. Triaxial Response-Spectrum Recorders			
a. Reactor Bldg. Mat. El. 175'-0"	M	SA	R**
b. Prim. Cont. RHR Piping Pene. El. 294'-6"	NA	NA	R**
c. Reactor Bldg. Refueling Fl. El. 353'-10"	NA	NA	R**
d. Control Bldg. Mat. El. 214'-0"	NA	NA	R**

\* Battery and Trigger only.

\*\* Calibration required to be for the range:  $\pm 1$  g.

\*\*\* Except seismic trigger.

ATTACHMENT B  
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DESCRIPTION OF PROPOSED TECHNICAL SPECIFICATION CHANGES

Niagara Mohawk Power Corporation (NMPC) propose the following changes:

- 1) Item 2.c of the Instruments and Sensor Locations of Technical Specification Tables 3.3.7.2-1 and 4.3.7.2-1, currently states:

"Prim. Cont. Recirc. Pump Motor"

NMPC proposes to modify item 2.c to state:

"Prim. Cont. Reactor Pedestal"

SAFETY EVALUATION

The operability of the seismic monitoring instrumentation ensures that sufficient capability is available to promptly determine the ground motion effects of a seismic event and evaluate the response of those features important to safety. This capability is required to permit comparison of the measured response to that used in the design basis for the plant.

The above changes reflect relocation of the triaxial peak accelerograph, from the constant vibration environment of the Recirculation Pump Motor, to the lower background vibration environment of the reactor pedestal. This change is necessary to ensure that the sensitive instrument's response to actual seismic activity is not masked by the background vibration readings occurring at the instrument's original location on a large pump motor.

The new location on the reactor pedestal complies with Regulatory Guide 1.12 and American National Standard ANS 2.2 and will improve the instrument's ability to provide accurate measurements of seismic response. This instrument is a passive, non-safety related instrument, requiring no electrical power to operate. Inasmuch as it does not control or actuate any systems and its failure would not inhibit the function of any safety related systems or components, its relocation does not alter or affect the operation of any safety related equipment or the safe operation or shutdown of the plant. Moreover, its relocation increases its ability to provide accurate measurements of seismic response in accordance with the level of information required by the Technical Specifications and the USAR.

For these reasons, there is reasonable assurance that the instrument relocation that would be authorized by the proposed amendment, will not endanger the health and safety of the public.

SUPPORTING INFORMATION

American National Standard "Earthquake Instrumentation Criteria for Nuclear Power Plants" ANSI/ANS 2.2 and Regulatory Guide 1.12, Rev. 01, "Instrumentation for Earthquakes" provide types of instruments to enable the licensee to make administrative decisions or invoke administrative procedures following an earthquake. Information from these instruments will be used to determine the conservatism in design assumptions for the structure and the design input motion to supported systems and components. This information will further be used to assess whether a safety evaluation is required for continued operation following an earthquake.

The Seismic Instrumentation System of Nine Mile Point Unit 2 includes instruments to: record the time history vibratory motion, record points on a response spectrum, provide immediate remote indication that a specified acceleration has been exceeded, provide immediate remote indication that specified spectral accelerations have been exceeded, and record peak acceleration by non-powered, passive instruments.

The records of peak acceleration by non-powered, passive instruments called triaxial peak accelerographs are to be used following an earthquake to determine if continued operation without a safety analysis is advisable.

This Application for Amendment proposes a relocation of one triaxial peak accelerograph. The accelerograph relocation is necessary to avoid high background vibration at the original instrument location which could mask readings from actual seismic activity.

In a Special Report dated January 16, 1989, Niagara Mohawk advised the NRC that Triaxial Peak Accelerograph 2ERS-PAC2C on the reactor recirculation pump motor was declared inoperable as a result of a failed vertical channel flexure arm, vertical permanent record plate indications exceeding amplitude values expected in an earthquake, and a loss of transverse axial sensitivity. Subsequent testing and analysis by Engineering revealed that the normal, but constant vertical vibration of the pump motor loosened the flexure arm and caused it to fail. The loosened arm recorded increased amplitude on the record plate. Constant instrument wear caused degraded sensitivity of the transverse platform sensor assembly.

Niagara Mohawk, in the January 16, 1989 Special Report, committed to move the instrument to a location with an acceptably low level of background vibration. A Safety Evaluation was performed according to 10 CFR 50.59, and the proposed location reported to the Nuclear Regulatory Commission by Special Report dated July 9, 1990.

As described in the July 9, 1990 Special Report, surveillance tests were planned for the Unit's second refueling outage to evaluate whether the background vibration at the new location had been acceptable.

Triaxial peak accelerograph 2ERS-PAC2C was relocated to the reactor pedestal during the unit's first refueling outage in the autumn of 1990. Surveillance tests conducted during a forced outage in April 1991, a brief surveillance outage in August 1991, and the second refueling outage in 1992 recorded acceptably low background vibration values. These values were below those expected from an Operating Basis Earthquake and demonstrated that the accelerograph could distinguish background noise from seismic activity at its new location on the reactor pedestal. The reactor pedestal, therefore, is an acceptable permanent location for triaxial peak accelerograph 2ERS-PAC2C.

### NO SIGNIFICANT HAZARDS CONSIDERATION ANALYSIS

According to 10CFR50.91, at the time a licensee requests an amendment, it must provide to the Commission its analysis, using the standards in 10CFR50.92, concerning the issue of no significant hazards consideration. According to 10CFR50.92(c), a proposed amendment to an operating license involves no significant hazards considerations if operation of the facility in accordance with the proposed amendment would not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated; or
2. Create the possibility of a new or different kind of accident from any accident previously evaluated; or
3. Involve a significant reduction in a margin of safety.

Niagara Mohawk has evaluated this proposed amendment pursuant to 10CFR50.91 and has determined that it involves no significant hazards considerations.

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.

This Amendment relocates a non-safety related passive instrument. The relocated instrument is a triaxial peak accelerograph which has been moved from the reactor recirculation pump "A" motor to the reactor pedestal, azimuth 137.5° at elevation 265' 5 1/2". The new location on the reactor pedestal complies with Regulatory Guide 1.12 and American National Standard ANS 2.2 and will improve the instrument's ability to provide accurate measurements of seismic response.

This non-safety related passive instrument does not control or actuate any systems. It does not perform an active function in response to an accident analyzed in the Updated Safety Analysis Report (USAR). The triaxial peak accelerograph will, however, measure the maximum acceleration response of reactor equipment during a seismic event. This information will enable Niagara Mohawk to compare the seismic response of reactor equipment with the design basis described in section 3.7 of the USAR.

The relocation of triaxial peak accelerograph 2ERS-PAC2C by this Amendment will not increase the probability or consequences of any accidents 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 instrument is a passive, non-safety related instrument, requiring no electrical power. The instrument does not control or actuate any systems and its failure would not inhibit the function of any safety related systems or components. Its relocation will not alter or affect the operation of any safety related equipment or the safe operation or shutdown of the plant.

The relocation of triaxial peak accelerograph 2ERS-PAC2C has no effect on pipe breaks and jet impingement on systems within the containment. This instrument relocation does not create any new human factors or fire protection concerns, nor does it affect any equipment clearance or any existing heavy loads analysis.

In summary, the relocation of triaxial peak accelerograph 2ERS-PAC2C does 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 relocation of 2ERS-PAC2C will increase its ability to provide accurate measurements of seismic response in accordance with the level of information required by the Technical Specifications and the USAR. This information may be required, according to Regulatory Guide 1.17, to determine "the advisability of continuing the operation of the plant without a safety analysis following an earthquake."

This relocated triaxial peak accelerograph does not affect, control, or actuate any safety related systems or any systems required for the safe operation or shutdown of the plant. Consequently, this Amendment to relocate triaxial peak accelerograph 2ERS-PAC2C does not involve a reduction in a margin of safety.

Accordingly, as determined by the analysis above, this proposed Amendment involves no significant hazards consideration.