

**List of Affected Pages for Proposed Tech. Spec. Amendment
To Remove Requirements Related to Seismic Monitoring Instrumentation**

<u>Page</u>	<u>Section</u>	<u>Description of Change</u>
vi	Index	Delete TS Section 3/4.3.7 line listing Seismic Monitoring Instrumentation.
xiii	Index	Delete Bases Section 3/4.3.7 line listing Seismic Monitoring Instrumentation.
xxii	Index	Delete references to Tables 3.3.7.2-1, "Seismic Monitoring Instrumentation," and 4.3.7.2-1, "Seismic Monitoring Instrumentation Surveillance Requirements."
3/4 3-61 thru 3/4 3-63	Instrumentation - Seismic Monitoring Instr.	Delete Specification 3.3.7.2, 4.3.7.2.1, and 4.3.7.2.2, Seismic Monitoring Instrumentation LCO and Surveillance Requirements
B 3/4 3-5	Bases -Instrumentation	Delete 3/4.3.7.2, "Seismic Monitoring Instrumentation."

Note to the Editor

The following note shall be placed in the center of page 3/4 3-61, and pages 3/4 3-62 and 3/4 3-63 will no longer exist.

Note: Pages 3/4 3-62 and 3/4 3-63 have been deleted

Page 3/4 3-64 shall be placed on the obverse side of page 3/4 3-61.

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>	<u>PAGE</u>
<u>3/4.3 INSTRUMENTATION</u>	
3/4.3.1 REACTOR PROTECTION SYSTEM INSTRUMENTATION.....	3/4 3-1
3/4.3.2 ISOLATION ACTUATION INSTRUMENTATION.....	3/4 3-10
3/4.3.3 EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION.....	3/4 3-25
3/4.3.4 RECIRCULATION PUMP TRIP ACTUATION INSTRUMENTATION	
ATWS Recirculation Pump Trip System Instrumentation..	3/4 3-37
End-of-Cycle Recirculation Pump Trip System Instrumentation.....	3/4 3-41
3/4.3.5 REACTOR CORE ISOLATION COOLING SYSTEM ACTUATION INSTRUMENTATION.....	3/4 3-47
3/4.3.6 CONTROL ROD BLOCK INSTRUMENTATION.....	3/4 3-52
3/4.3.7 MONITORING INSTRUMENTATION	
Radiation Monitoring Instrumentation.....	3/4 3-58
Seismic Monitoring Instrumentation.....	3/4 3-61
Meteorological Monitoring Instrumentation.....	3/4 3-64
Remote Shutdown Monitoring Instrumentation.....	3/4 3-67
Accident Monitoring Instrumentation.....	3/4 3-70
Source Range Monitors.....	3/4 3-76
Traversing In-Core Probe System.....	3/4 3-77
Loose-Part Detection System.....	3/4 3-78
Explosive Gas Monitoring Instrumentation.....	3/4 3-79
3/4.3.8 TURBINE OVERSPEED PROTECTION SYSTEM.....	3/4 3-82
3/4.3.9 FEEDWATER SYSTEM/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION.....	3/4 3-84

BASES

SECTION

PAGE

INSTRUMENTATION (Continued)

3/4.3.7 MONITORING INSTRUMENTATION

Radiation Monitoring Instrumentation..... B 3/4 3-4

~~Seismic Monitoring Instrumentation..... B 3/4 3-4~~

Meteorological Monitoring Instrumentation..... B 3/4 3-5

Remote Shutdown Monitoring Instrumentation..... B 3/4 3-5

Accident Monitoring Instrumentation..... B 3/4 3-5

Source Range Monitors..... B 3/4 3-5

Traversing In-Core Probe System..... B 3/4 3-5

Loose-Part Detection System..... B 3/4 3-6

Explosive Gas Monitoring Instrumentation..... B 3/4 3-6

3/4.3.8 TURBINE OVERSPEED PROTECTION SYSTEM..... B 3/4 3-6

**3/4.3.9 FEEDWATER SYSTEM/MAIN TURBINE TRIP SYSTEM
ACTUATION INSTRUMENTATION..... B 3/4 3-6**

3/4.4 REACTOR COOLANT SYSTEM

3/4.4.1 RECIRCULATION SYSTEM..... B 3/4 4-1

3/4.4.2 SAFETY/RELIEF VALVES..... B 3/4 4-1

3/4.4.3 REACTOR COOLANT SYSTEM LEAKAGE

Leakage Detection Systems..... B 3/4 4-1a

Operational Leakage..... B 3/4 4-2

3/4.4.4 CHEMISTRY..... B 3/4 4-2

3/4.4.5 SPECIFIC ACTIVITY..... B 3/4 4-3

3/4.4.6 PRESSURE/TEMPERATURE LIMITS..... B 3/4 4-4

3/4.4.7 MAIN STEAM LINE ISOLATION VALVES..... B 3/4 4-5

addition
made by
602-93-180
dated
7/13/92

INDEX

LIST OF TABLES (Continued)

<u>TABLE</u>		<u>PAGE</u>
3.3.4.2-1	END-OF-CYCLE RECIRCULATION PUMP TRIP SYSTEM INSTRUMENTATION.....	3/4 3-43
3.3.4.2-2	END-OF-CYCLE RECIRCULATION PUMP TRIP SETPOINTS.....	3/4 3-44
3.3.4.2-3	END-OF-CYCLE RECIRCULATION PUMP TRIP SYSTEM RESPONSE TIMES.....	3/4 3-45
4.3.4.2.1-1	END-OF-CYCLE RECIRCULATION PUMP TRIP SYSTEM SURVEILLANCE REQUIREMENTS.....	3/4 3-46
3.3.5-1	REACTOR CORE ISOLATION COOLING SYSTEM ACTUATION INSTRUMENTATION.....	3/4 3-48
3.3.5-2	REACTOR CORE ISOLATION COOLING SYSTEM ACTUATION INSTRUMENTATION SETPOINTS.....	3/4 3-50
4.3.5.1-1	REACTOR CORE ISOLATION COOLING SYSTEM ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS.....	3/4 3-51
3.3.6-1	CONTROL ROD BLOCK INSTRUMENTATION.....	3/4 3-53
3.3.6-2	CONTROL ROD BLOCK INSTRUMENTATION SETPOINTS.....	3/4 3-55
4.3.6-1	CONTROL ROD BLOCK INSTRUMENTATION SURVEILLANCE REQUIREMENTS.....	3/4 3-56
3.3.7.1-1	RADIATION MONITORING INSTRUMENTATION.....	3/4 3-59
4.3.7.1-1	RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS.....	3/4 3-60
3.3.7.2-1	SEISMIC MONITORING INSTRUMENTATION.....	3/4 3-62
4.3.7.2-1	SEISMIC MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS.....	3/4 3-63
3.3.7.3-1	METEOROLOGICAL MONITORING INSTRUMENTATION.....	3/4 3-65
4.3.7.3-1	METEOROLOGICAL MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS.....	3/4 3-66
3.3.7.4-1	REMOTE SHUTDOWN MONITORING INSTRUMENTATION.....	3/4 3-68
4.3.7.4-1	REMOTE SHUTDOWN MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS.....	3/4 3-69

CONTROLLED COPY

INSTRUMENTATION

SEISMIC MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.7.2 The seismic monitoring instrumentation shown in Table 3.3.7.2-1 shall be OPERABLE.

APPLICABILITY: At all times.

ACTION:

- a. With one or more of the above required seismic monitoring instruments inoperable for more than 30 days, in lieu of any other report required by Specification 6.9.1, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 10 days outlining the cause of the malfunction and the plans for restoring the instrument(s) to OPERABLE status.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.7.2.1 Each of the above required seismic monitoring instruments shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST, and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3.7.2-1.

4.3.7.2.2 Each of the above required seismic monitoring instruments actuated during a seismic event greater than or equal to 0.01 g shall be restored to OPERABLE status within 24 hours and a CHANNEL CALIBRATION performed within 5 days following the seismic event. Data shall be retrieved from actuated instruments and analyzed to determine the magnitude of the vibratory ground motion. In lieu of any other report required by Specification 6.9.1, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 10 days describing the magnitude, frequency spectrum, and resultant effect upon unit features important to safety.

Deleter

TABLE 3.3.7.2-1
SEISMIC MONITORING INSTRUMENTATION

<u>INSTRUMENTS AND SENSOR LOCATIONS</u>	<u>MEASUREMENT RANGE</u>	<u>MINIMUM INSTRUMENTS OPERABLE</u>
1. Triaxial Time-History Accelerographs		
a. Reactor Building foundation	<u>+1g</u>	1
b. Containment Drywell floor	<u>+1g</u>	1
c. Free field	<u>+1g</u>	1
2. Triaxial Peak Accelerographs		
a. Reactor vessel head	<u>+5g</u>	1
b. HPCS injection piping	<u>+5g</u>	1
c. Standby service water pump house	<u>+5g</u>	1
3. Triaxial Seismic Switches		
a. Reactor Building foundation	0.025g to 0.25g	1(a)
4. Triaxial Response-Spectrum Recorders		
a. Reactor Building floor	1.6g to 34g	1(a)
b. HPCS injection line piping support	1.6g to 34g	1
c. Reactor Building refueling floor	1.6g to 34g	1
d. Radwaste Building foundation	1.6g to 34g	1

(a)With reactor control room annunciation.

Delete

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			
a. Reactor Building foundation	M	SA	R
b. Containment Drywell floor	M	SA	R
c. Free field	M	SA	R
2. Triaxial Peak Accelerographs			
a. Reactor vessel head	N.A.	N.A.	R
b. HPCS injection piping	N.A.	N.A.	R
c. Standby service water pump house	N.A.	N.A.	R
3. Triaxial Seismic Switches			
a. Reactor Building foundation	M(a)	SA	R
4. Triaxial Response-Spectrum Recorders			
a. Reactor Building floor	M	SA	R
b. HPCS injection line piping support	N.A.	N.A.	R
c. Reactor Building refueling floor	N.A.	N.A.	R
d. Radwaste Building foundation	N.A.	N.A.	R

(a)Except seismic trigger.

Delete

INSTRUMENTATION

BASES

MONITORING INSTRUMENTATION (Continued)

3/4.3.7.2 SEISMIC MONITORING INSTRUMENTATION

The OPERABILITY of the seismic monitoring instrumentation ensures that sufficient capability is available to promptly determine the magnitude 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 unit. This instrumentation is consistent with the recommendations of Regulatory Guide 1.12, "Instrumentation for Earthquakes," April 1974.

3/4.3.7.3 METEOROLOGICAL MONITORING INSTRUMENTATION

The OPERABILITY of the meteorological monitoring instrumentation ensures that sufficient meteorological data are available for estimating potential radiation doses to the public as a result of routine or accidental release of radioactive materials to the atmosphere. This capability is required to evaluate the need for initiating protective measures to protect the health and safety of the public. This instrumentation is consistent with the recommendations of Regulatory Guide 1.23, "Onsite Meteorological Programs," February, 1972.

3/4.3.7.4 REMOTE SHUTDOWN MONITORING INSTRUMENTATION

The OPERABILITY of the remote shutdown monitoring instrumentation ensures that sufficient capability is available to permit shutdown and maintenance of HOT SHUTDOWN of the unit from locations outside of the control room. This capability is required in the event control room habitability is lost and is consistent with General Design Criterion 19 of Appendix A to 10 CFR Part 50.

3/4.3.7.5 ACCIDENT MONITORING INSTRUMENTATION

The OPERABILITY of the accident monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess important variables following an accident. This capability is consistent with the recommendations of Regulatory Guide 1.97, "Instrumentation for Light Water Cooled Nuclear Power Plants to Assess Plant Conditions During and Following an Accident," December 1975 and NUREG-0737, "Clarification of TMI Action Plan Requirements," November 1980.

3/4.3.7.6 SOURCE RANGE MONITORS

The source range monitors provide the operator with information of the status of the neutron level in the core at very low power levels during startup and shutdown. At these power levels, reactivity additions shall not be made without this flux level information available to the operator. When the intermediate range monitors are on scale, adequate information is available without the SRMs and they can be retracted.

3/4.3.7.7 TRAVERSING IN-CORE PROBE SYSTEM

The OPERABILITY of the traversing in-core probe system with the specified minimum complement of equipment ensures that the measurements obtained from use of this equipment accurately represent the spatial neutron flux distribution of the reactor core.

information added by
letter G02-93-282
dated 12-6-93

