

ATTACHMENT 2

TECHNICAL SPECIFICATION PAGES WITH PEN AND INK CHANGES

LICENSE AMENDMENT APPLICATION
REMOVAL OF SEISMIC AND METEOROLOGICAL INSTRUMENTATION
FROM THE TECHNICAL SPECIFICATIONS
FACILITY OPERATING LICENSE NPF-57
HOPE CREEK GENERATING STATION
DOCKET NO. 50-354

NLR-N94117
LCR 94-18

The following Technical Specifications for Facility Operating License No. NPF-57 are affected by this License Amendment Request:

<u>Technical Specification</u>	<u>Pages</u>
3/4 3.7	viii and xviii
3/4.3.7.2	3/4 3-68, 3/4 3-69 and 3/4 3-70
3/4.3.7.3	3/4 3-71, 3/4 3-72 and 3/4 3-73
B 3/4 3.7.2	B 3/4 3-4
B 3/4 3.7.3	B 3/4 3-4 and B 3/4 3-5

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>	<u>PAGE</u>
Table 3.3.5-1 Reactor Core Isolation Cooling System Actuation Instrumentation.....	3/4 3-52
Table 3.3.5-2 Reactor Core Isolation Cooling System Actuation Instrumentation Setpoints.....	3/4 3-54
Table 4.3.5.1-1 Reactor Core Isolation Cooling System Actuation Instrumentation Surveillance Requirements.....	3/4 3-55
3/4.3.6 CONTROL ROD BLOCK INSTRUMENTATION.....	3/4 3-56
Table 3.3.6-1 Control Rod Block Instrumentation.....	3/4 3-57
Table 3.3.6-2 Control Rod Block Instrumentation Setpoints.....	3/4 3-59
Table 4.3.6-1 Control Rod Block Instrumentation Surveillance Requirements.....	3/4 3-60
3/4.3.7 MONITORING INSTRUMENTATION	
Radiation Monitoring Instrumentation.....	3/4 3-62
Table 3.3.7.1-1 Radiation Monitoring Instrumentation....	3/4 3-63
Table 4.3.7.1-1 Radiation Monitoring Instrumentation Surveillance Requirements.....	3/4 3-66
Seismic Monitoring Instrumentation.....	3/4 3-68
Table 3.3.7.2-1 Seismic Monitoring Instrumentation.....	3/4 3-69
Table 4.3.7.2-1 Seismic Monitoring Instrumentation Surveillance Requirements.....	3/4 3-70
Meteorological Monitoring Instrumentation.....	3/4 3-71
Table 3.3.7.3-1 Meteorological Monitoring Instrumentation.....	3/4 3-72
Table 4.3.7.3-1 Meteorological Monitoring Instrumentation Surveillance Requirements.....	3/4 3-73
Remote Shutdown Monitoring Instrumentation and Controls...	3/4 3-74

INDEX

BASES

SECTION

PAGE

INSTRUMENTATION (Continued)

Seismic Monitoring Instrumentation.....	B 3/4 3-4
Meteorological Monitoring Instrumentation.....	B 3/4 3-4
Remote Shutdown Monitoring Instrumentation and Controls.....	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
Radioactive Liquid Effluent Monitoring Instrumentation.....	B 3/4 3-6
Radioactive Gaseous Effluent Monitoring Instrumentation.....	B 3/4 3-6
3/4.3.8 TURBINE OVERSPEED PROTECTION SYSTEM.....	B 3/4 3-7
3/4.3.9 FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION.....	B 3/4 3-7
Figure B3/4 3-1 Reactor Vessel Water Level.....	B 3/4 3-8
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 4-1a
3/4.4.3 REACTOR COOLANT SYSTEM LEAKAGE	
Leakage Detection Systems.....	B 3/4 4-3
Operational Leakage.....	B 3/4 4-3
3/4.4.4 CHEMISTRY.....	B 3/4 4-3
3/4.4.5 SPECIFIC ACTIVITY.....	B 3/4 4-4
3/4.4.6 PRESSURE/TEMPERATURE LIMITS.....	B 3/4 4-5
Table B3/4.4.6-1 Reactor Vessel Toughness.....	B 3/4 4-7
Figure B3/4.4.6-1 Fast Neutron Fluence (E>1Mev) at (1/4)T as a Function of Service Life.....	B 3/4 4-8

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, 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 Specification 3.0.3 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 0.01g 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. 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.

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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. 500' From Reactor Building Free Field, 60' Below Grade	± 1G	1
b. Primary Containment Foundation, Room 4101	± 1G	1
c. Refueling Floor in Reactor Building	± 1G	1
d. Core Spray Piping in Drywell	± 1G	1
e. Auxiliary Building Foundation	± 1G	1
2. Triaxial Peak Accelerographs		
a. Reactor Support Lateral Truss	± 5G	1
b. Core Spray Piping in Drywell	± 5G	1
c. Service Water Pump Piping	± 5G	1
3. Triaxial Seismic Switches		
a. Primary Containment Foundation, Room 4101 (Trigger)	NA	1*
b. Primary Containment Foundation, Room 4101 (Switch)	NA	1(a)
4. Triaxial Response-Spectrum Recorders		
a. Primary Containment Foundation (north-south)	1.0 -32.0 Hz**	1
b. Primary Containment Foundation (east-west)	1.0 -32.0 Hz**	1
c. Primary Containment Foundation (vertical)	1.0 -32.0 Hz**	1

(a) With reactor control room annunciation.

*Provides trigger mechanism to activate magnetic recording tapes for the time-history accelerographs.

**Each recorder has 16 reeds responsive to 16 discrete frequencies from 1.0-32.0 Hz. Each recorder also contains 16 switches integrally related to the 16 reeds which provide independent control room indication when predetermined acceleration levels and design limits have been exceeded.

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. 500' From Reactor Building Free Field, 60' Below Grade	M	SA	R
b. Primary Containment Foundation, Room 4101	M	SA	R
c. Refueling Floor in Reactor Building	M	SA	R
d. Core Spray Piping in Drywell	M	SA	R
e. Auxiliary Building Foundation	M	SA	R
2. Triaxial Peak Accelerographs			
a. Reactor Support Lateral Truss	NA	NA	R
b. Core Spray Piping in Drywell	NA	NA	R
c. Service Water Pump Piping	NA	NA	R
3. Triaxial Seismic Switches			
a. Primary Containment Foundation, Room 4101 (Trigger)	NA	SA	R
b. Primary Containment Foundation Room 4101 (Switch)	NA	SA	R
4. Triaxial Response-Spectrum Recorders			
a. Primary Containment Foundation (north-south)	M	SA	R
b. Primary Containment Foundation (east-west)	M	SA	R
c. Primary Containment Foundation (vertical)	M	SA	R

INSTRUMENTATION

METEOROLOGICAL MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.7.3 The meteorological monitoring instrumentation channels shown in Table 3.3.7.3-1 shall be OPERABLE.

APPLICABILITY: At all times.

ACTION:

- a. With one or more of the required meteorological monitoring instrumentation channels inoperable for more than 7 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 instrumentation to OPERABLE status.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.7.3 Each of the above required meteorological monitoring instrumentation channels shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3.7.3-1.

TABLE 3.3.7.3-1

METEOROLOGICAL MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM INSTRUMENTS OPERABLE</u>
a. Wind Speed	
1. Elev. 33 ft.	1
2. Elev. 150 ft.	1
b. Wind Direction	
1. Elev. 30 ft.	1
2. Elev. 150 ft.	1
c. Air Temperature Difference	
1. Elev. 150-33 ft.	1

TABLE 4.3.7.3-1

METEOROLOGICAL MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>
a. Wind Speed		
1. Elev. 33 ft.	D	SA
2. Elev. 150 ft.	D	SA
b. Wind Direction		
1. Elev. 33 ft.	D	SA
2. Elev. 150 ft.	D	SA
c. Air Temperature Difference		
1. Elev. 150-33 ft.	D	SA

Replace with Insert 2

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BASES3/4.3.5 REACTOR CORE ISOLATION COOLING SYSTEM ACTUATION INSTRUMENTATION

The reactor core isolation cooling system actuation instrumentation is provided to initiate actions to assure adequate core cooling in the event of reactor isolation from its primary heat sink and the loss of feedwater flow to the reactor vessel. Specified surveillance intervals and surveillance and maintenance outage times have been determined in accordance with NEDC-30936P-A, "BWR Owners' Group Technical Specification Improvement Methodology (With Demonstration for BWR ECCS Actuation Instrumentation)," Parts 1 and 2 and GENE-770-06-2-A, "Addendum to Bases for Changes to Surveillance Test Intervals and Allowed Out-of-Service Times for Selected Instrumentation Technical Specifications." The safety evaluation reports documenting NRC approval of NEDC-30936P-A and GENE-770-06-2-A are contained in letters to D. N. Grace from A. C. Thadani dated December 9, 1988 (Part 1), D. N. Grace to C. E. Rossi dated December 9, 1988 (Part 2), and G. J. Beck from C. E. Rossi dated September 13, 1991.

Operation with a trip set less conservative than its Trip Setpoint but within its specified Allowable Value is acceptable on the basis that the difference between each Trip Setpoint and the Allowable Value is an allowance for instrument drift specifically allocated for each trip in the safety analyses.

3/4.3.6 CONTROL ROD BLOCK INSTRUMENTATION

The control rod block functions are provided consistent with the requirements of the specifications in Section 3/4.1.4, Control Rod Program Controls and Section 3/4.2 Power Distribution Limits and Section 3/4.3 Instrumentation. The trip logic is arranged so that a trip in any one of the inputs will result in a control rod block.

Operation with a trip set less conservative than its Trip Setpoint but within its specified Allowable Value is acceptable on the basis that the difference between each Trip Setpoint and the Allowable Value is an allowance for instrument drift specifically allocated for each trip in the safety analyses.

3/4.3.7 MONITORING INSTRUMENTATION3/4.3.7.1 RADIATION MONITORING INSTRUMENTATION

The OPERABILITY of the radiation monitoring instrumentation ensures that; (1) the radiation levels are continually measured in the areas served by the individual channels, and (2) the alarm or automatic action is initiated when the radiation level trip setpoint is exceeded; and (3) sufficient information is available on selected plant parameters to monitor and assess these variables following an accident. This capability is consistent with 10 CFR Part 50, Appendix A, General Design Criteria 19, 41, 60, 61, 63 and 64.

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 is available for estimating potential radiation doses to the public as a result of routine or accidental release of

Replace with Insert 4

INSTRUMENTATION

BASES

MONITORING INSTRUMENTATION (Continued)

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 AND CONTROLS

The OPERABILITY of the remote shutdown monitoring instrumentation and controls 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 Criteria 19 of 10 CFR 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 1980 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. For a discussion of SPIRAL RELOAD and SPIRAL UNLOAD and the associated flux monitoring requirements, see Technical Specification Bases Section 3/4.9.2. 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.

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INSERT 3

3/4 3-69 thru 3/4 3-73

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