UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

ARKANSAS POWER & LIGHT COMPANY

DOCKET NO. 50-313

ARKANSAS NUCLEAR ONE, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 84
License No. DPR-51

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Arkansas Power and Light Company (the licensee) dated June 15, 1984, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.c.(2) of Facility Operating License No. DPR-51 is hereby amended to read as follows:

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Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 84 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

John F. Stolz, Chief
Operating Reactors Branch No. 4
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: October 15, 1984

ATTACHMENT TO LICENSE AMENDMENT NO. 84

FACILITY OPERATING LICENSE NO. DPR-51

DOCKET NO. 50-313

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change.

Remove	Insert
ii	ii
66i	66i
66j	66j
66k	66k
66l	66l
	66 1-1
	66 1-2
	66 1-3
	66 1-4
	66 1-5
	66 1-6
	66 1-7
110e	110e
110f	110f
110g	110g
	110g-1
	110g-2
129	129
	129a

3.16 Shock Suppressors (Snubbers)

Applicability

Applies to all shock suppressors (snubbers) listed in Tables 3.16-1 and 3.16-2.

Objective

To assure adequate shock suppression protection for primary coolant system piping and any other safety related system or component under dynamic loads as might occur during an earthquake or severe transient, while allowing normal thermal motion during startup and shutdown. This is done by assuring the operability of those shock suppressors installed for that purpose.

Specification

3.16.1 The reactor shall not be heated above 200F if any shock suppressor listed in Table 3.16-1 or Table 3.16-2 is known to be inoperable.

3.16.2 If any shock suppressor listed in Table 3.16-1 or Table 3.16-2 is determined to be inoperable during power operation, that shock suppressor shall be made operable or replaced within 72 hours or the reactor shall be placed in the cold shutdown condition within an additional 36 hours.

3.16.3 Shock suppressors may be added to safety related systems, without prior License Amendment to Table 3.16-1 or Table 3.16-2, provided that a revision to Table 3.16-1 or Table 3.16-2 is included with the next License Amendment request.

Bases

Shock suppressors are designed to prevent unrestrained pipe motion under dynamic loads as might occur during an earthquake or severe transient, while allowing normal thermal motion during startup and shutdown. The consequence of an inoperable shock suppressor is an increase in the probability of structural damage to piping as a result of a seismic or other event initiating dynamic loads. It is therefore required that all shock suppressors required to protect the primary coolant system or any other safety system or component be operable during reactor operation.

Because the shock suppressor protection is required only during low probability events, a period of 72 hours is allowed for repairs or replacements. In case a shutdown is required, the allowance of 36 hours to reach a cold shutdown condition will permit an orderly shutdown consistent with standard operating procedures. Since plant startup should not commence with knowingly defective safety related equipment, Specification 3.16.1 prohibits startup with inoperable shock suppressors.

Table 3.16-1

SAFETY RELATED HYDRAULIC SHOCK SUPPRESSORS (SNUBBERS)

Snubber No.	Location	Elevation	Snubber in High Radiation Area During Shutdown*	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
HS-49	Decay Heat Line A	329' 1"	X			X
HS-50	Decay Heat Line A	322' 11-3/8"	X			X
HS-8	Pressurizer Spray Line	408' 7-11/16"	X		X	
HS-9	Pressurizer Spray Line	408' 7-11/16"	X		X	
HS-51	Pressurizer Spray Line	373' 0"	X	X	X	
HS-52	Pressurizer Spray Line	373' 0"	X	X	X	
HS-53	Pressurizer Spray Line	382' 0"	X		X	
HS-54	Pressurizer Spray Line	381' 6"	X	X	X	
HS-55	Pressurizer Spray Line	398' 6"	X	X	X	
HS-56	Pressurizer Spray Line	398' 0"	X	X	X	
HS-57	Pressurizer Spray Line	406' 10"	X		X	
HS-58	Pressurizer Spray Line	408' 7-11/16"	X		X	
HS-59	Pressurizer Spray Line	408' 7-11/16"	X		X	
HS-60	Pressurizer Spray Line	408' 7-11/16"	X		X	
HS-61	Pressurizer Spray Line	408' 7-11/16"	X		X	
HS-62	Pressurizer Spray Line	408' 7-11/16"	X		X	
HS-63	Pressurizer Spray Line	408' 7-11/16"	X		X	

*Modifications to this Table due to changes in high radiation areas should be submitted to the NRC as part of the next license amendment.

Table 3.16-1 (Cont.)

SAFETY RELATED HYDRAULIC SHOCK SUPPRESSORS (SNUBBERS)

Snubber No.	Location	Elevation	Snubber in High Radiation Area During Shutdown*	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
HS-11	Pressurizer Relief Line	410' 2-3/4"			X	
HS-12	Pressurizer Relief Line	410' 2-3/4"			X	
HS-13	Pressurizer Relief Line	400' 0"			X	
HS-14	Pressurizer Relief Line	400' 0"			X	
HS-66	Pressurizer Relief Line	410' 2-3/4"			X	
HS-67	Pressurizer Relief Line	410' 2-3/4"			X	
HS-69	Pressurizer Relief Line	410' 2-3/4"			X	
HS-70	Pressurizer Relief Line	391' 0"	X		X	
HS-88	Pressurizer Relief Line	370' 0"	X	X	X	
H-A-1	Pressurizer Relief Line	400' 0"	X	X	X	
H-A-2	Pressurizer Relief Line	399' 0"	X	X	X	
H-B-1	Pressurizer Relief Line	400' 0"	X	X	X	
H-B-2	Pressurizer Relief Line	391' 0"	X	X	X	
H-C-1	Pressurizer Relief Line	410' 2-3/4"		X	X	
H-C-2	Pressurizer Relief Line	394' 0"			X	
HS-22	Main Feedwater Header B	376' 4-11/16"		X	X	
HS-23	Main Feedwater Header B	376' 4-11/16"		X	X	

*Modifications to this table due to changes in high radiation areas should be submitted to the NRC as part of the next license amendment.

Table 3.16-1 (Cont.)

SAFETY RELATED HYDRAULIC SHOCK SUPPRESSORS (SNUBBERS)

Snubber No.	Location	Elevation	Snubber in High Radiation Area During Shutdown*	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
HS-24	Main Feedwater Header B	376' 4-11/16"	X	X	X	
HS-25	Main Feedwater Header B	376' 4-11/16"	X	X	X	
HS-26	Main Feedwater Header B	376' 4-11/16"		X	X	
HS-27	Main Feedwater Header B	376' 4-11/16"		X	X	
HS-28	Main Feedwater Header B	375' 4-11/16"	X	X	X	
HS-29	Main Feedwater Header B	376' 4-11/16"	X	X	X	
HS-30	Main Feedwater Line A	361' 0"			X	
HS-31	Main Feedwater Header A	376' 4-11/16"		X	X	
HS-32	Main Feedwater Header A	376' 4-11/16"		X	X	
HS-33	Main Feedwater Header A	376' 4-11/16"		X	X	
HS-34	Main Feedwater Header A	376' 4-11/16		X	X	
HS-35	Main Feedwater Header A	376' 4-11/16"		X	X	
HS-36	Main Feedwater Header A	376' 4-11/16"	X	X	X	
HS-37	Main Feedwater Header A	376' 4-11/16"		X	X	
HS-38	Main Feedwater Header A	376' 4-11/16"		X	X	
HS-21	Emergency Feedwater Line B	394' 0"	X		X	
1A	Reactor Coolant Pump A	390' 10"		X	X	
2A	Reactor Coolant Pump A	390' 10"		X	X	
1B	Reactor Coolant Pump B	390' 10"		X	X	
2B	Reactor Coolant Pump B	390' 10"		X	X	
1C	Reactor Coolant Pump C	390' 10"		X	X	
2C	Reactor Coolant Pump C	390' 10"		X	X	
1D	Reactor Coolant Pump D	390' 10"		X	X	
2D	Reactor Coolant Pump D	390' 10"		X	X	
HS-101	Pressurizer Surge Line	350' 0"	X	X	X	
HS-102	Pressurizer Surge Line	350' 0"	X	X	X	

*Modifications to this Table due to changes in high radiation areas should be submitted to the NRC as part of the next license amendment.

Table 3.16-2

SAFETY RELATED MECHANICAL SHOCK SUPPRESSORS (SNUBBERS)

Snubber No.	Location	Elevation	Snubber in High Radiation Area During Shutdown*	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
HS-1	Reactor Bldg Drain Header	339'-8 15/16"			X	
HS-2	Reactor Bldg Drain Header	339'-8 15/16"			X	
HS-3(A)	Reactor Bldg Main Steam	416'			X	
HS-3(B)	Reactor Bldg Main Steam	416'			X	
HS-4	Reactor Bldg Main Steam	401'			X	
HS-5	Reactor Bldg Main Steam	422'-11"			X	
HS-15	Reactor Bldg Main Steam	407'-0"			X	
HS-16(A)	Reactor Bldg Main Steam	420'-6"			X	
HS-16(B)	Reactor Bldg Main Steam	420'-6"			X	
HS-17(A)	Reactor Bldg Main Steam	417'-8"			X	
HS-17(B)	Reactor Bldg Main Steam	417'-8"			X	
HS-18	Reactor Bldg Main Steam	407-10"			X	
HS-19	Reactor Bldg Main Steam	396'-0"			X	
HS-20	Reactor Bldg Main Steam	407'-10"			X	
HS-6(A)	Turbine Aux Bldg	346'-0"				X
HS-6(B)	Turbine Aux Bldg	346'-0"				X
HS-7	Aux Bldg Main Steam	420'-0"				X
HS-46	Aux Bldg Main FW Pump Disch	382'-3 3/8"				X
HS-48	Aux Bldg Main FW Pump Disch	382'-3 3/8"				X
HS-10	Pressurizer Relief Piping	409'-2 3/4"			X	
HS-68	Pressurizer Relief Piping	410'-3"			X	
HS-71	Pressurizer Relief Piping	367'-7"			X	
HS-72	Rx Bldg Pressurizer Relief Piping	358'-8"			X	

*Modifications to this Table due to changes in high radiation areas should be submitted to the NRC as part of the next license amendment.

661-1

Table 3.16-2 (Cont.)

SAFETY RELATED MECHANICAL SHOCK SUPPRESSORS (SNUBBERS)

Snubber No.	Location	Elevation	Snubber in High Radiation Area During Shutdown*	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
HS-89	Pressurizer Relief Piping	410'-2 3/4"			X	
HS-91	Pressurizer Relief Piping	382'-11"			X	
HS-93	Pressurizer Relief Piping	412'-5"			X	
HS-100	Pressurizer Surge Line	363'-3"			X	
BS-79A	Reactor Bldg Spray Header	373'-9"			X	
CCB-1-[illegible]16	Rx Bldg Decay Heat Removal	344'-6"			X	
CA-321-[illegible]2	Rx Bldg E24 Loop Vent To RB Vent Hdr	420'-6"			X	
LW-223-H1 (A)	Rx Bldg E24 Loop Vent To RB Vent Hdr	421'-0 1/2"			X	
LW-223-H1 (B)	Rx Bldg E24 Loop Vent To RB Vent Hdr	421'-0 1/2"			X	
LW-223-H2	Rx Bldg E24A Loop Vent To RB Vent Hdr	421'-0 9/16"			X	
LW-223-H6	Rx Bldg E24A Loop Vent To RB Vent Hdr	421'-0 9/16"			X	
LW-223-H10	Rx Bldg E24A Loop Vent To RB Vent Hdr	421'-0 1/8"			X	
LW-223-H12	Rx Bldg E24A Loop Vent To RB Vent Hdr	421'-0±			X	
LW-223-H14 (A)	Rx Bldg E24A Loop Vent To RB Vent Hdr	421'-0 5/8"			X	
LW-223-H14 (B)	Rx Bldg E24A Loop Vent To RB Vent Hdr	421'-0 5/8"			X	
LW-223-H15	Rx Bldg E24A Loop Vent To RB Vent Hdr	421'-0 1/2"			X	

*Modifications to this Table due to changes in high radiation areas should be submitted to the NRC as part of the next license amendment.

Table 3.16-2 (Cont.)

SAFETY RELATED MECHANICAL SHOCK SUPPRESSORS (SNUBBERS)

Snubber No.	Location	Elevation	Snubber in High Radiation Area During Shutdown*	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
LW-223-H18	Rx Bldg E24A Loop Vent To RB Vent Hdr	420'-6"			X	
LW-223-H21 (A)	Rx Bldg E24 Loop Vent To RB Vent Hdr	421'-0 9/16"			X	
LW-223-H21 (B)	Rx Bldg E24 Loop Vent To RB Vent Hdr	421'-0 9/16"			X	
LW-223-H22	Rx Bldg E24 Loop Vent To RB Vent Hdr	420'-6 1/2"			X	
LW-224-H1 (A)	Rx Bldg T1 Vent to RB Vent Hdr	411'-3"			X	
LW-224-H1 (B)	Rx Bldg T1 Vent to RB Vent Hdr	411'-3"			X	
LW-224-H2	Rx Bldg T1 Vent to RB Vent Hdr	411'-3"			X	
LW-224-H3 (A)	Rx Bldg T1 Vent to RB Vent Hdr	408'-9 7/8"			X	
LW-224-H3 (B)	Rx Bldg T1 Vent to RB Vent Hdr	408'-9 7/8"			X	
LW-224-H5	Rx Bldg T1 Vent to RB Vent Hdr	411'-3"			X	
LW-224-H6	Rx Bldg T1 Vent to RB Vent Hdr	411'-2 5/8"±			X	
LW-224-H7	Rx Bldg T1 Vent to RB Vent Hdr	408'-9 7/8"			X	
LW-224-H10	Rx Bldg T1 Vent to RB Vent Hdr	411'-3"			X	

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Table 3.16-2 (Cont.)

SAFETY RELATED MECHANICAL SHOCK SUPPRESSORS (SNUBBERS)

Snubber No.	Location	Elevation	Snubber in High Radiation Area During Shutdown*	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
LW-224-H13 (A)	Rx Bldg T1 Vent to RB Vent Hdr	411'-3"			X	
LW-224-H13 (B)	Rx Bldg T1 Vent to RB Vent Hdr	411'-3"			X	
LW-224-H14	Rx Bldg T1 Vent to RB Vent Hdr	411'-3 7/16"			X	
LW-227-H4	Rx Bldg E24B Loop Vent To RB Vent Hdr	421'-2"(+)			X	
LW-227-H7	Rx Bldg E24B Loop Vent To RB Vent Hdr	421'-3"			X	
LW-227-H8 (A)	Rx Bldg E24B Loop Vent To RB Vent Hdr	421'-3"			X	
LW-227-H8 (B)	Rx Bldg E24B Loop Vent To RB Vent Hdr	421'-3"			X	
LW-227-H10	Rx Bldg E24B Loop Vent To RB Vent Hdr	421'-3"			X	
LW-227-H11 (A)	Rx Bldg E24B Loop Vent To RB Vent Hdr	421'-3"			X	
LW-227-H11 (B)	Rx Bldg E24B Loop Vent To RB Vent Hdr Turbine (K3)	421'-3"			X	
LW-227-H14 (A)	Rx Bldg E24B Loop Vent To RB Vent Hdr	421'-3"			X	
LW-227-H14 (B)	Rx Bldg E24B Loop Vent To RB Vent Hdr	421'-2 7/8"			X	
LW-227-H17	Rx Bldg E24B Loop Vent To RB Vent Hdr	421'-2"±			X	

*Modifications to this Table due to changes in high radiation areas should be submitted to the NRC as part of the next license amendment.

Table 3.16-2 (Cont.)

SAFETY RELATED MECHANICAL SHOCK SUPPRESSORS (SNUBBERS)

Snubber No.	Location	Elevation	Snubber in High Radiation Area During Shutdown*	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
LW-227-H21	Rx Bldg E24B Loop Vent To RB Vent Hdr	421'-3"			X	
3EFW-113-H3	Aux Bldg Emergency Feedwater System	342'-4 5/16"				X
3EFW-113-H7	Aux Bldg Emergency Feedwater System	342'-4 5/16"				X
1-MS-5-H6	Steam Admission to EFW Turbine (K3)	406'-7 1/8"			X	
1-MS-118-H1	Steam Admission to EFW Turbine (K3)	408'-0"			X	
1-MS-118-H2	Steam Admission to EFW Turbine (K3)	408'-0"			X	
1-MS-118-H4	Steam Admission to EFW Turbine (K3)	405' 4 1/8"			X	
1-MS-118-H6	Steam Admission to EFW Turbine (K3)	405'-0"			X	
1-MS-118-H20 (A)	Steam Admission to EFW Turbine (K3)	338'-11 1/2"			X	
1-MS-118-H20 (B)	Steam Admission to EFW Turbine (K3)	338'-11 1/2"			X	
1-MS-118-H21 (A)	Steam Admission to EFW Turbine (K3)	337'-10 1/4"			X	
1-MS-118-H21 (B)	Steam Admission to EFW Turbine (K3)	337'-10 1/4"			X	
MS-229-H1	Steam Admission to EFW Turbine (K3)	405'-1 5/16"			X	
MS-229-H2	Steam Admission to EFW Turbine (K3)	405'-1 5/16"			X	

*Modifications to this Table due to changes in high radiation areas should be submitted to the NRC as part of the next license amendment.

Table 3.16-2 (Cont.)

SAFETY RELATED MECHANICAL SHOCK SUPPRESSORS (SNUBBERS)

Snubber No.	Location	Elevation	Snubber in High Radiation Area During Shutdown*	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
MU-167A	RB Makeup & Purification	381'-6"			X	
MU-210A	RB Makeup & Purification	377'-9 1/2"			X	
MU-210B	RB Makeup & Purification	382'-6"			X	
SA-215-H4	RB T1 Sample (Steam) to RB Conn	409'-7"			X	
SA-215-H5 (A)	RB T1 Sample (Steam) to RB Conn	407'-6 1/4"			X	
SA-215-H5 (B)	RB T1 Sample (Steam) to RB Conn	407'-6 1/4"			X	
RC-214-H1 (A)	RB Reactor Coolant System Vent	400'-8 3/8"			X	
RC-214-H1 (B)	RB Reactor Coolant System Vent	400'-8 3/8"			X	
RC-214-H3 (A)	RB Reactor Coolant System Vent	400'-8 3/8"			X	
RC-214-H3 (B)	RB Reactor Coolant System Vent	400'-8 3/8"			X	
RC-214-H7 (A)	RB Reactor Coolant System Vent	403'			X	
RC-214-H7 (B)	RB Reactor Coolant System Vent	403'			X	
RC-214-H10 (A)	RB Reactor Coolant System Vent	403'-0 3/8"			X	

*Modifications to this Table due to changes in high radiation areas should be submitted to the NRC as part of the next license amendment.

661-6

Table 3.16-2 (Cont.)

SAFETY RELATED MECHANICAL SHOCK SUPPRESSORS (SNUBBERS)

Snubber No.	Location	Elevation	Snubber in High Radiation Area During Shutdown*	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
RC-214-H10 (B)	RB Reactor Coolant System Vent	403'-0 3/8"			X	
RC-214-H11 (A)	RB Reactor Coolant System Vent	403'-0 3/8"			X	
RC-214-H11 (B)	RB Reactor Coolant System Vent	403'-0 3/8"			X	
CCA-13-H2	Containment Bldg Primary Sampling	408'-8 1/2"				X
CCA-13-H3	Containment Bldg Primary Sampling	408'-8 1/2"				X
CCA-13-H4	Containment Building Primary Sampling	408'-8 1/2"				X

*Modifications to this Table due to changes in high radiation areas should be submitted to the NRC as part of the next license amendment.

4.16 SHOCK SUPPRESSORS (Snubbers)

Applicability

Applies to all shock suppressors (snubbers) protecting the primary system and any other safety related system or component.

Objective

Verify an acceptable level of operability of the shock suppressors protecting the primary system and any other safety related system or component.

Specification

4.16.1 The following surveillance requirements apply to all applicable shock suppressors listed in Table 3.16-1 and Table 3.16-2.

a. Inspection Types

As used in this specification, type of snubber shall mean snubbers of the same design and manufacturer, irrespective of capacity.

Snubbers are categorized as inaccessible or accessible during reactor operation.

b. Visual Inspections

Visual inspections shall be performed in accordance with the following schedule:

No. Inoperable Snubbers per Inspection Period	Subsequent Visual Inspection Period
0	18 months ± 25%
1	12 months ± 25%
2	6 months ± 25%
3, 4	124 days ± 25%
5, 6, 7	62 days ± 25%
8 or more	31 days ± 25%

The snubbers may be categorized into groups based on type and accessibility. Each group may be inspected independently in accordance with the above schedule.

The inspection interval for each type of snubber shall not be lengthened more than one step at a time unless a generic problem has been identified and corrected; in that event the inspection interval may be lengthened one step the first time and two steps thereafter if no inoperable snubbers of that type are found.

The provisions of Specification 4 regarding surveillance intervals are not applicable.

c. Visual Inspection Acceptance Criteria

Visual inspections shall verify (1) that there are no visible indications of damage or impaired operability, and (2) attachments to the foundation or supporting structure are sec[illegible]e. Snubbers which are determined to be inoperable as a result of visual inspections may be determined operable for the purpose of establishing the next visual inspection interval, providing that (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers that may be generically susceptible; and (2) the affected snubber is functionally tested in the as found condition and determined operable per Specifications 4.16.1.d or 4.16.1.e, as applicable. However, when the fluid port of a hydraulic snubber is found to be uncovered, the snubber shall be determined inoperable and cannot be determined operable via functional testing for the purpose of establishing the next visual inspection interval. All snubbers connected to a common hydraulic fluid reservoir shall be evaluated for operability if any snubber connected to that reservoir is determined to be inoperable.

d. Functional Tests

At least once each refueling shutdown a representative sample of snubbers shall be tested using the following sample plan.

At least 10% of the snubbers required by Specification 3.16.1 shall be functionally tested either in place or in a bench test. For each snubber that does not meet the functional test acceptance criteria of Specification 4.16.1.e, an additional 10% of the snubbers shall be functionally tested until no more failures are found or until all snubbers have been functionally tested.

The representative samples for the functional test sample plans shall be randomly selected from the snubbers required by Specification 3.16.1 and reviewed before beginning the testing. The review shall ensure as far as practical that they are representative of the various configurations, operating environments, range of sizes, and capacities. Snubbers placed in the same locations as snubbers which failed the previous functional test shall be retested at the time of the next functional test but shall not be included in the sample plan. If during the functional testing, additional sampling is required due to failure of only one type of snubber, the functional testing results shall be reviewed at that time to determine if additional samples should be limited to the type of snubber which has failed the functional testing.

e. Functional Test Acceptance Criteria

The snubber functional test shall verify that:

1) Activation (restraining action) is achieved within the specified range in both tension and compression, except that inertia dependent, acceleration limiting mechanical snubbers may be tested to verify only that activation takes place in both directions of travel;

2) Snubber bleed, or release rate where required, is present in both tension and compression, within the specified range;

3) Where required, the force required to initiate or maintain motion of the snubber is within the specified range in both direction of travel; and

4) For snubbers specifically required not to displace under continuous load, the ability of the snubber to withstand load without displacement.

Testing methods may be used to measure parameters indirectly or parameters other than those specified if those results can be correlated to the specified parameters through established methods.

f. Functional Test Failure Analysis

An evaluation shall be made of each failure to meet the functional test acceptance criteria to determine the cause of the failure. The results of this evaluation shall be used, if applicable, in selecting snubbers to be tested in an effort to determine the operability of other snubbers irrespective of type which may be subject to the same failure mode.

For the snubbers found inoperable, an engineering evaluation shall be performed on the components to which the inoperable snubbers are attached. The purpose of this engineering evaluation shall be to determine if the components to which the inoperable snubbers are attached were adversely affected by the inoperability of the snubbers in order to ensure that the component remains capable of meeting the designed service.

If any snubber selected for functional testing either fails to activate or fails to move, i.e., frozen-in-place, the cause will be evaluated and, if caused by manufacturer or

design deficiency, all snubbers of the same type subject to the same defect shall be evaluated in a manner to ensure their operability. This testing requirement shall be independent of the requirements stated in Specification 4.16.1.d for snubbers not meeting the functional test acceptance criteria.

g. Preservice Testing of Repaired, Replacement and New Snubbers

Preservice operability testing shall be performed on repaired, replacement or new snubbers prior to installation. Testing may be at the manufacturer's facility. The testing shall verify the functional test acceptance criteria in Specification 4.16.1.e.

In addition, a preservice inspection shall be performed on each repaired, replacement or new snubber and shall verify that:

1) There are no visible signs of damage or impaired operability as a result of storage, handling or installation;

2) The snubber load rating, location, orientation, position setting and configuration (attachments, extensions, etc.), are in accordance with design;

3) Adequate swing clearance is provided to allow snubber movement;

4) If applicable, fluid is at the recommended level and fluid is not leaking from the snubber system;

5) Structural connections such as pins, bearings, studs, fasteners and other connecting hardware such as lock nuts, tabs, wire and cotter pins are installed correctly.

h. Snubber Seal Replacement Program

The seal service life of hydraulic snubbers shall be monitored to ensure that the service life is not exceeded between surveillance inspections. The expected service life for the various seals, seal materials, and applications shall be determined and established based on engineering information and the seals shall be replaced so that the expected service life will not be exceeded during a period when the snubber is required to be operable. The seal replacements shall be documented and the documentation shall be retained in accordance with Specification 6.9.2.

BASES

All safety related snubbers are required to be operable to ensure that the structural integrity of the reactor coolant system and all other safety related systems is maintained during and following a seismic or other event initiating dynamic loads. Snubbers excluded from this inspection program are those installed on nonsafety related systems and then only if their failure, or failure of the system on which they are installed, would have no adverse effect on any safety related system.

The visual inspection frequency is based upon maintaining a constant level of snubber protection to plant systems. Therefore, the required inspection interval varies inversely with the observed snubber failures and is determined by the number of inoperable snubbers found during an inspection. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the result of such early inspections performed before the original required time interval has elapsed (nominal time less 25%) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

When the cause of the rejection of a snubber is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible, and verified by inservice functional testing, that snubber may be exempted from being counted as inoperable. Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber by visual inspection, or are similarly located or exposed to the same environmental conditions such as temperature, radiation and vibration.

When a snubber is found inoperable, an engineering evaluation is performed, in addition to the determination of the snubber mode of failure, in order to determine if any safety related component or system has been adversely affected by inoperability of the snubber. The engineering evaluation is performed to determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the supported component or system.

h. Records of in-service inspections performed pursuant to these Technical Specifications.

i. Records of Quality Assurance activities required by Section 17 of the Quality Assurance Manual for Operations.

j. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10CFR50.59.

k. Records of meetings of the PSC and the SRC.

l. Records for Environmental Qualification which are covered under the provisions of paragraph 6.13.

m. Records of the service lives of the seals of all hydraulic snubbers listed on Table 3.16-1 including the date at which the service life commences and associated installation and maintenance records.

6.10 RADIATION PROTECTION PROGRAM

Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure.

6.11 HIGH RADIATION AREA

6.11.1 In lieu of the "control device" or "alarm signal" required by paragraph 20.203(c)(2) of 10CFR20, each high radiation area (as defined in 20.202(b)(3) of 10CFR20) in which the intensity of radiation is 1000 mrem/hr or less shall be barricaded and conspicuously posted as a high radiation area and shall be controlled by requiring the issuance of a radiation work permit. Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

a. A radiation monitoring device which continuously indicates the radiation dose rate in the area.

b. A radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a pre-set integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate level in the area has been established and personnel have been made knowledgeable of them.

c. An individual qualified in radiation protection procedures who is equipped with a radiation dose rate monitoring device. This individual shall be responsible for providing positive control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified in the radiation work permit.

6.11.2 The requirements of 6.11.1 above, shall also apply to each high radiation area in which the intensity of radiation is greater than 1000 mrem/hr. In addition, locked doors shall be provided to prevent unauthorized entry into such areas and access to these areas shall be maintained under the administrative control of the Shift Supervisor on duty and/or the Health Physics Superintendent.