DCD 016

January 29, 1985

Docket No. 50-368

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Mr. John M. Griffin
Senior Vice President
Energy Supply
Arkansas Power & Light Company
P. O. Box 551
Little Rock, Arkansas 72203

Dear Mr. Griffin:

The Commission has issued the enclosed Amendment No. 62 to Facility Operating License No. NPF-6 for Arkansas Nuclear One, Unit No. 2. The amendment consists of changes to the Technical Specifications (TS) in response to your application dated June 30, 1983 as superseded by letter dated May 19, 1984.

The amendment revises the Technical Specifications pertaining to hydraulic snubbers and adds new requirements for mechanical snubber operability and testing.

A copy of our Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's next monthly Federal Register Notice.

Sincerely,

/S/

Robert Lee, Project Manager
Operating Reactors Branch #3
Division of Licensing

Enclosures:
1. Amendment No. 62 to NPF-6
2. Safety Evaluation

cc w/enclosures:

ORB-3 LGEngle 1/21/85

ORB#3:DL	ORB#3:DL	ORB#3:DL	OELD	AD:OR:DL
PMKretzer	RSLee	JRMiller		GCLainas
1/7/85	1/10/85	1/23/85	1/24/85	1/28/85

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

ARKANSAS POWER & LIGHT COMPANY

DOCKET NO. 50-368

ARKANSAS NUCLEAR ONE, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 62
License No. NPF-6

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

   A. The application for amendment by Arkansas Power & Light Company (the licensee) dated June 30, 1983, as superseded by letter dated May 19, 1984, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules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. NPF-6 is hereby amended to read as follows:

   (2) Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 62 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications, except where otherwise stated in specific license conditions.

3. This license amendment is effective upon start up after the fourth refueling outage but no later than July 30, 1985.

FOR THE NUCLEAR REGULATORY COMMISSION

James R. Miller, Chief
Operating Reactors Branch #3
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: January 29, 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 62

FACILTIY OPERATING LICENSE NO. NPF-6

DOCKET NO. 50-368

Revise the Appendix A Technical Specifications as follows. The revised pages are identifed by amendment number and contain marginal lines indicating the area of change. Corresponding overleaf pages are included to maintain document completeness.

Remove	Insert
VIII	VIII
XIII	XIII
3/4 7-22	3/4 7-22
3/4 7-23	3/4 7-23
	3/4 7-23a
	3/4 7-23b
3/4 7-26	3/4 7-26
	3/4 7-26a
	3/4 7-26b
	3/4 7-26c
	3/4 7-26d
	3/4 7-26e
	3/4 7-26f
	3/4 7-26g
	3/4 7-26h
	3/4 7-26i
	3/4 7-26j
	3/4 7-26k
B 3/4 7-5	B 3/4 7-5
6-23	6-23

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LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

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LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

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BASES

BASES

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3/4.7.8 SHOCK SUPPRESSORS (SNUBBERS)

LIMITING CONDITION FOR OPERATION

3.7.8 All snubbers listed in Tables 3.7-4 and 3.7-4a shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4. MODES 5 and 6 for snubbers located on systems required OPERABLE in those MODES.

ACTION:

With one or more snubbers inoperable, within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status and perform an engineering evaluation per Specification 4.7.8.f on the attached component, or declare the attached system inoperable and follow the appropriate ACTION statement for that system.

SURVEILLANCE REQUIREMENTS

4.7.8 Each snubber shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program and the requirements of Specification 4.0.5.

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.

SURVEILLANCE REQUIREMENTS (Continued)

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 4.0.2 are not applicable.

c. Visual Inspection Acceptance Criteria

Visual inspections shall verify that (1) there are no visible indications of damage or impaired OPERABILITY, and (2) attachments to the foundation or supporting structure are secure. 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 4.7.8.d or 4.7.8.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 3.7.8 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 4.7.8.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 3.7.8 and reviewed before begining 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 directions 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 if they 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 requirement shall be independent of the requirements stated in Specification 4.7.8.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 4.7.8.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 6.10.2.

TABLE 3.7-4

SAFETY RELATED HYDRAULIC SNUBBERS*

SNUBBER NO.	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION	ACCESSIBLE OR INACCESSIBLE (A or I)	HIGH RADIATION ZONE DURING SHUTDOWN** (Yes or No)	ESPECIALLY DIFFICULT TO REMOVE (Yes or No)
HS-RCPA-E	On Reactor Coolant Pump A (South Secondary Cavity), East Side, Elev. 390' 10"	I	Yes	Yes
HS-RCPA-W	On Reactor Coolant Pump A (South Secondary Cavity), West Side, Elev. 390' 10"	I	Yes	Yes
HS-RCPB-E	On Reactor Coolant Pump B (South Secondary Cavity), East Side, Elev. 390' 10"	I	Yes	Yes
HS-RCPB-W	On Reactor Coolant Pump B (South Secondary Cavity), West Side, Elev. 390' 10"	I	Yes	Yes
HS-RCPC-E	On Reactor Coolant Pump C (North Secondary Cavity), East Side, Elev. 390' 10"	I	Yes	Yes
HS-RCPC-W	On Reactor Coolant Pump C (North Secondary Cavity), West Side, Elev. 390' 10"	I	Yes	Yes
HS-RCPD-E	On Reactor Coolant Pump D (North Secondary Cavity), East Side, Elev. 390' 10"	I	Yes	Yes

TABLE 3.7-4 (Continued)

SAFETY RELATED HYDRAULIC SNUBBERS*

SNUBBER NO.	SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION	ACCESSIBLE OR INACCESSIBLE (A or I)	HIGH RADIATION ZONE DURING SHUTDOWN** (Yes or No)	ESPECIALLY DIFFICULT TO REMOVE (Yes or No)
HS-RCPD-W	On Reactor Coolant Pump D (North Secondary Cavity), West Side, Elev. 390' 10"	I	Yes	Yes
HS-SGA-E	On Steam Generator A (South Secondary Cavity), East Side, Elev. 403' 7"	I	Yes	Yes
HS-SGA-W	On Steam Generator A (South Secondary Cavity), West Side, Elev. 403' 7"	I	Yes	Yes
HS-SGB-E	On Steam Generator B (North Secondary Cavity), East Side, Elev. 403' 7"	I	Yes	Yes
HS-SGB-W	On Steam Generator B (North Secondary Cavity), West Side, Elev. 403' 7"	I	Yes	Yes

* Snubbers may be added to safety related systems without prior License Amendment to Table 3.7-4 provided that a revision to Table 3.7-4 is included with the next License Amendment request.

**Modifications to this column due to changes in high radiation areas may be made without prior License Amendment provided that a revision to Table 3.7-4 is included with the next License Amendment request.

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TABLE 3.7-4a

SAFETY RELATED MECHANCIAL SHOCK SUPPRESSORS (SNUBBERS)[a]

SNUBBER NUMBER	LOCATION	ELEVATION	SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN[b]	SNUBBER ESPECIALLY DIFFICULT TO REMOVE	SNUBBERS INACCESSIBLE DURING NORMAL OPERATION	SNUBBERS ACCESSIBLE DURING NORMAL OPERATION
2BCA1H2	Pressure Surge Line	376' 2 3/4"			X	
2BCA1H3	Pressure Surge Line	376' 2 3/4"			X	
2BCA14H1	Pressurizer Vent Line	415' 5"			X	
2BCA14H2	Pressurizer Vent Line	415' 5"			X	
2BCA14H3	Pressurizer Vent Line	414' 7 3/4"			X	
2BCA14H5	Pressurizer Vent Line	415' 5"			X	
2BCA14H7	Pressurizer Vent Line	407' 3"			X	
2BCA14H10	Pressurizer Vent Line	413' 5"			X	
2BCA14H12	Pressurizer Vent Line	415' 4 7/8"			X	
2BCA14H13	Pressurizer Vent Line	415' 5"			X	
2BCA14H14	Pressurizer Vent Line	415' 5"			X	
2BCA14H15	Pressurizer Vent Line	415' 5"			X	
2BCA16H3 (A)	Reactor Coolant System Vent	416' 3 3/8"			X	
2BCA16H3 (B)	Reactor Coolant System Vent	416' 3 3/8"			X	
2BCA16H5 (A)	Reactor Coolant System Vent	415' 8 5/16"			X	
2BCA16H5 (B)	Reactor Coolant System Vent	415' 8 5/16"			X	
2BCA16H10 (A)	Reactor Coolant System Vent	415' 6 3/16"			X	
2BCA16H10 (B)	Reactor Coolant System Vent	415' 6 3/16"			X	
2BCA16H12	Reactor Coolant System Vent	415' 8 1/2"			X	
2BCB2H12	Reactor Coolant System	368' 0"			X	
2BCB2H32	Reactor Coolant System	368' 0"			X	
2CCA13H2	Reactor Miscellaneous System	372' 3 11/16"			X	
2CCA13H3	Reactor Miscellaneous System	372' 3"			X	
2CCA13H4	Reactor Miscellaneous System	372' 0"			X	
2CCA14H2	Reactor Miscellaneous System	371' 9"			X	
2CCA14H3	Reactor Miscellaneous System	372' 1"			X	
2CCA14H4	Reactor Miscellaneous System	371'11"			X	
2CCA15H9	Reactor Miscellaneous System	370' 9"			X	
2CCA15H17	Reactor Miscellaneous System	384' 0"			X	
2CCA15H19	Reactor Miscellaneous System	384' 0"			X	
2CCA15H24	Reactor Miscellaneous System	371' 0"			X	
2CCA15H26	Reactor Miscellaneous System	370' 9"			X	
2CCA15H27	Reactor Miscellaneous System	370' 9"			X	
2CCA15H29	Reactor Miscellaneous System	412' 6"			X	

TABLE 3.7-4a (Continued)

SAFETY RELATED MECHANCIAL SHOCK SUPPRESSORS (SNUBBERS)[a]

SNUBBER NUMBER	LOCATION	ELEVATION	SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN[b]	SNUBBER ESPECIALLY DIFFICULT TO REMOVE	SNUBBERS INACCESSIBLE DURING NORMAL OPERATION	SNUBBERS ACCESSIBLE DURING NORMAL OPERATION
2CCA15H30	Reactor Miscellaneous System	412' 6"			X	
2CCA16Detail F	Chemical and Volume Control	336' 6"			X	
2CCA16Detail 1	Chemical and Volume Control	336' 6"			X	
2CCA16H3	Chemical and Volume Control	336' 6"			X	
2CCA16H5	Chemical and Volume Control	336' 6"			X	
2CCA16H8	Chemical and Volume Control	336' 6"			X	
2CCA16H9	Chemical and Volume Control	336' 6"			X	
2CCA17H15 (A)	Reactor Coolant System Vent	415'11 5/8"			X	
2CCA17H15 (B)	Reactor Coolant System Vent	415'11 5/8"			X	
2CCA17H22 (A)	Reactor Coolant System Vent	418' 1 3/4"			X	
2CCA17H22 (B)	Reactor Coolant System Vent	418' 1 3/4"			X	
2CCA17H24 (A)	Reactor Coolant System Vent	418' 3 1/2"			X	
2CCA17H24 (B)	Reactor Coolant System Vent	418' 3 1/2"			X	
2CCA17H25 (A)	Reactor Coolant System Vent	418' 3 5/16"			X	
2CCA17H25 (B)	Reactor Coolant System Vent	418' 3 5/16"			X	
2CCA18H2	Reactor Coolant System	357' 0"			X	
2CCA18H4	Reactor Coolant System	357' 0"			X	
2CCA21H10	Safety Injection/Shutdown Cooling	378' 6"			X	
2CCA21H12	Safety Injection	384' 4 7/8"			X	
2CCA21H16 (A)	Safety Injection	372' 0"				X
2CCA21H16 (B)	Safety Injection	372' 0"				X
2CCA21H18 (A)	Safety Injection	388' 0"			X	
2CCA21H18 (B)	Safety Injection	388' 0"			X	
2CCA21H19 (A)	Safety Injection	372' 0"			X	
2CCA21H19 (B)	Safety Injection	372' 0"			X	
2CCA21H15	Safety Injection	372' 0"			X	
2CCA21H17	Safety Injection	375' 0"			X	
2CCA22H13	Safety Injection	376' 0"			X	
2CCA22H14	Safety Injection	375' 4 7/16"			X	
2CCA22H15 (A)	Safety Injection	375' 4 7/16"			X	
2CCA22H15 (B)	Safety Injection	375' 4 7/16"			X	
2CCA22H17	Safety Injection	375' 4 7/16"			X	
2CCA22H18	Safety Injection	384' 4"			X	
2CCA22H19	Safety Injection	383' 4"			X	

TABLE 3.7-4a (Continued)

SAFETY RELATED MECHANCIAL SHOCK SUPPRESSORS (SNUBBERS)[a]

SNUBBER NUMBER	LOCATION	ELEVATION	SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN[b]	SNUBBER ESPECIALLY DIFFICULT TO REMOVE	SNUBBERS INACCESSIBLE DURING NORMAL OPERATION	SNUBBERS ACCESSIBLE DURING NORMAL OPERATION
2CCA22H21	Safety Injection	388' 0"			X	
2CCA22H22	Safety Injection	390' 8 1/8"			X	
2CCA23H11	Safety Injection	388' 0"			X	
2CCA23H18	Safety Injection	371' 4"			X	
2CCA23H21	Safety Injection	356'10 3/4"			X	
2CCA23H23	Safety Injection	351' 2"			X	
2CCA23H26	Safety Injection	377' 6 3/4"			X	
2CCA23H27 (A)	Safety Injection	377' 6 3/4"			X	
2CCA23H27 (B)	Safety Injection	377' 6 3/4"			X	
2CCA23H28	Safety Injection	369' 6"			X	
2CCA24H15	Safety Injection	388' 0"			X	
2CCA24H17	Safety Injection	386' 0"			X	
2CCA24H19	Safety Injection	377' 0"			X	
2CCA24H24	Safety Injection	351' 2"			X	
2CCA24H27	Safety Injection	351' 2"			X	
2CCA25H3	Safety Injection	350'10"			X	
2CCA25H4	Safety Injection	350' 2"			X	
2CCA25H5	Safety Injection	347' 6"			X	
2CCA25H6	Safety Injection	353' 9"			X	
2CCA25H10	Safety Injection	354' 6"			X	
2CCA25H13	Safety Injection	352' 1 1/2"			X	
2CCA25H14	Safety Injection	354' 6"			X	
2CCA26H2	Chemical and Volume Control	336' 6"			X	
2CCA32H2	Reactor Coolant Drain	357' 0"			X	
2CCA38H1	Reactor Coolant Drain	357' 0"			X	
2CCA38H3	Reactor Coolant Drain	357' 0"			X	
2CCB1H3 (A)	Letdown Line	345' 3 1/2"			X	
2CCB1H3 (B)	Letdown Line	345' 3 1/2"			X	
2CCB2H2	Chemical and Volume Control	360' 0"			X	
2CCB2H5	Chemical and Volume Control	360' 0"			X	
2CCB4H2	Safety Injection	363' 0"				X
2CCB8H8	Charging Pump Discharge	342' 3"				X
2CCB8H11	Charging Pump Discharge	342' 3"			X	
2CCB8H18	Charging Pump Discharge	342' 3"				X

TABLE 3.7-4a (Continued)

SAFETY RELATED MECHANCIAL SHOCK SUPPRESSORS (SNUBBERS)[a]

SNUBBER NUMBER	LOCATION	ELEVATION	SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN[b]	SNUBBER ESPECIALLY DIFFICULT TO REMOVE	SNUBBERS INACCESSIBLE DURING NORMAL OPERATION	SNUBBERS ACCESSIBLE DURING NORMAL OPERATION
2CCB54H2	Sample System	357' 0"			X	
2CCB54H3	Sample System	357' 0"			X	
2CCB69H1	Reactor Coolant Drain	336' 6"			X	
2CCB69H3	Reactor Coolant Drain	336' 6"			X	
2CCB69H4	Reactor Coolant Drain	336' 6"			X	
2CCB76H2 (A)	Reactor Coolant System Vent	418' 2 3/4"			X	
2CCB76H2 (B)	Reactor Coolant System Vent	416'11"			X	
2CCB76H10 (A)	Reactor Coolant System Vent	416'11"			X	
2CCB76H10 (B)	Reactor Coolant System Vent	416'11"			X	
2CCB76H11 (A)	Reactor Coolant System Vent	415' 5"			X	
2CCB76H11 (B)	Reactor Coolant System Vent	415' 5"			X	
2CCB76H12	Reactor Coolant System Vent	416' 5 1/2"			X	
2CCB76H14	Reactor Coolant System Vent	418'11 1/4"			X	
2CCB76H17 (A)	Reactor Coolant System Vent	417' 6"			X	
2CCB76H17 (B)	Reactor Coolant System Vent	417' 6"			X	
2DBB1H2 (A)	Main Feedwater	402' 0 11/32"			X	
2DBB1H2 (B)	Main Feedwater	402' 0 11/32"			X	
2DBB1H3	Main Feedwater	402' 0 3/8"			X	
2DBB1H4 (A)	Main Feedwater	404' 0"			X	
2DBB1H4 (B)	Main Feedwater	404' 0"			X	
2DBB1H6	Main Feedwater	404' 4"			X	
2DBB1H8	Main Feedwater	387' 0"			X	
2DBB1H9	Main Feedwater	388' 0 3/8"			X	
2DBB1H10	Main Feedwater	386' 0"			X	
2DBB1H12	Main Feedwater	369' 4 1/2"			X	
2DBB1H13	Main Feedwater	368' 4 1/2"			X	
2DBB1H14	Main Feedwater	355' 6"			X	
2DBB1H17	Main Feedwater	402' 0 5/16"			X	
2DBB2H2 (A)	Main Feedwater	391' 1 1/4"			X	
2DBB2H2 (B)	Main Feedwater	391' 1 1/4"			X	
2DBB2H8	Main Feedwater	358' 6"			X	
2DBB2H11	Main Feedwater	347' 6"			X	
2DBB2H13	Main Feedwater	351' 7"			X	
2DBB2H15	Main Feedwater	362'11 1/8"			X	

TABLE 3.7-4a (Continued)

SAFETY RELATED MECHANCIAL SHOCK SUPPRESSORS (SNUBBERS)[a]

SNUBBER NUMBER	LOCATION	ELEVATION	SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN[b]	SNUBBER ESPECIALLY DIFFICULT TO REMOVE	SNUBBERS INACCESSIBLE DURING NORMAL OPERATION	SNUBBERS ACCESSIBLE DURING NORMAL OPERATION
2DBB2H16	Main Feedwater	374' 0"			X	
2DBB2H17 (A)	Main Feedwater	347' 6"			X	
2DBB2H17 (B)	Main Feedwater	347' 6"			X	
2DBB2H19	Main Feedwater	353' 6"			X	
2DBB3H1	Emergency Feedwater	399' 8 5/16"			X	
2DBB3H2	MFW to SG 2E26A	400' 4 3/16"			X	
2DBB3H5	Emergency Feedwater	377' 6"			X	
2DBB3H13	Emergency Feedwater	400' 4 5/16"			X	
2DBB3H15	Emergency Feedwater	400' 4 3/16"			X	
2DBB3H16	Emergency Feedwater	399' 4 5/16"			X	
2DBB3H17	Emergency Feedwater	399' 4 3/16"			X	
2DBB4H1	Emergency Feedwater	370' 0"				X
2DBB4H2	Emergency Feedwater	372' 2 13/16"			X	
2DBB4H3 (A)	Emergency Feedwater	370' 0"			X	
2DBB4H3 (B)	Emergency Feedwater	370' 0"			X	
2DBB4H5	Emergency Feedwater	370' 0"			X	
2DBB7H5	Reactor Miscellaneous System	376' 2"			X	
2DBB14H1	Steam Generator Secondary System	386' 0"			X	
2DBB14H2	Steam Generator Secondary System	386' 0"			X	
2DBB14H3	Steam Generator Secondary System	386' 0"			X	
2DBB14H4	Steam Generator Secondary System	386' 0"			X	
2DBD1H11	Main Feedwater	336'11 7/8"				X
2DBD1H17 (A)	Main Feedwater	364' 8"				X
2DBD1H17 (B)	Main Feedwater	364' 8"				X
2DBD2H11	Main Feedwater	363' 5"				X
2DBD2H12	Main Feedwater	386' 0"				X
2DBD2H13	Main Feedwater	380' 9"				X
2DBD2H14 (A)	Main Feedwater	380' 9"				X
2DBD2H14 (B)	Main Feedwater	380' 9"				X
2EBB1AH4	Main Steam	425' 1 1/2"			X	
2EBB1AH5	Main Steam	436' 2 31/32"			X	
2EBB1AH6 (A)	Main Steam	436' 3"			X	
2EBB1AH6 (B)	Main Steam	436' 3"			X	
2EBB1AH7	Main Steam	436' 2 31/32"			X	

TABLE 3.7-4a (Continued)

SAFETY RELATED MECHANCIAL SHOCK SUPPRESSORS (SNUBBERS)[a]

SNUBBER NUMBER	LOCATION	ELEVATION	SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN[b]	SNUBBER ESPECIALLY DIFFICULT TO REMOVE	SNUBBERS INACCESSIBLE DURING NORMAL OPERATION	SNUBBERS ACCESSIBLE DURING NORMAL OPERATION
2EBB1H4	Main Steam	428' 4"				X
2EBB2AH4	Main Steam	436' 2 31/32"			X	
2EBB2AH5	Main Steam	436' 2 31/32"			X	
2EBB2AH6 (A)	Main Steam	436' 3"			X	
2EBB2AH6 (B)	Main Steam	436' 3"			X	
2EBB2AH7	Main Steam	436' 2 31/32"			X	
2EBB2H4	Main Steam	436' 3"				X
2EBB2H5 (A)	Main Steam	413' 8 1/2"				X
2EBB2H5 (B)	Main Steam	413' 8 1/2"				X
2EBB2H6 (A)	Main Steam	414' 6"				X
2EBB2H6 (B)	Main Steam	414' 6"				X
2EBB7H2	Main Steam	440' 3"				X
2EBB8H2	Main Steam	426' 2 7/8"				X
2EBB16H3	Steam Generator Secondary System	386' 0"				X
2EBB16H5	Steam Generator Secondary System	386' 0"				X
2EBB16H6	Steam Generator Secondary System	386' 0"				X
2EBB16H7	Steam Generator Secondary System	386' 0"				X
2EBB16H8	Steam Generator Secondary System	386' 0"				X
2EBB17-1H002	Steam Generator Secondary System	Above 386' 0"				X
2EBB17-1H003	Steam Generator Secondary System	Above 386' 0"				X
2EBB17-1H004	Steam Generator Secondary System	Above 386' 0"				X
2EBB17-1H005	Steam Generator Secondary System	Above 386' 0"				X
2EBB17-1H006	Steam Generator Secondary System	Above 386' 0"				X
2EBB30H3	Steam Generator Secondary System	405' 6"			X	
2EBB30H4	Steam Generator Secondary System	405' 6"			X	
2EBB30H7	Steam Generator Secondary System	405' 6"			X	
2EBB30H8	Steam Generator Secondary System	405' 6"			X	
2EBB31H2	Steam Generator Secondary System	405' 6"			X	
2EBC1H9 (A)	Main Steam	350' 3"				X
2EBC1H9 (B)	Main Steam	350' 3"				X
2EBC1H26	Main Steam	343' 2"				X
2EBC1H29	Main Steam	340' 2"				X
2EBC1H30	Main Steam	339' 6 5/8"				X
2EBC1H31	Main Steam	414' 0"				X

TABLE 3.7-4a (Continued)

SAFETY RELATED MECHANCIAL SHOCK SUPPRESSORS (SNUBBERS)[a]

SNUBBER NUMBER	LOCATION	ELEVATION	SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN[b]	SNUBBER ESPECIALLY DIFFICULT TO REMOVE	SNUBBERS INACCESSIBLE DURING NORMAL OPERATION	SNUBBERS ACCESSIBLE DURING NORMAL OPERATION
2EBC2H4	Main Steam	421' 1"				X
2EBC2H7	Main Steam	421' 1"				X
2EBD1H1 (A)	Main Steam	404' 9"				X
2EBD1H1 (B)	Main Steam	404' 9"				X
2EBD1H2 (A)	Main Steam	403' 6"				X
2EBD1H2 (B)	Main Steam	403' 6"				X
2EBD1H11 (A)	Main Steam	346' 0"				X
2EBD1H11 (B)	Main Steam	346' 0"				X
2EBD1H12	Main Steam	346' 0"				X
2EBD1H13 (A)	Main Steam	354' 0"				X
2EBD1H13 (B)	Main Steam	354' 0"				X
2EBD1H14	Main Steam	354' 0"				X
2EBD1H15	Main Steam	353' 9"				X
2EBD1H16	Main Steam	354' 0"				X
2EBD2H1 (A)	Main Steam	404' 6 1/2"				X
2EBD2H1 (B)	Main Steam	404' 6 1/2"				X
2EBD2H2 (A)	Main Steam	403' 6"				X
2EBD2H2 (B)	Main Steam	403' 6"				X
2EBD2H11	Main Steam	346' 2"				X
2EBD2H12	Main Steam	346' 0"				X
2EBD2H13	Main Steam	346' 0"				X
2EBD2H14	Main Steam	346' 0"				X
2EBD2H15 (A)	Main Steam	346' 0"				X
2EBD2H15 (B)	Main Steam	346' 0"				X
2EBD2H16	Main Steam	346' 0"				X
2EBD22H8	Main Steam Dump to Condensate	358' 0"				X
2EBD28H7	Main Steam	358' 0"				X
2EBD56-2H001	Main Steam	423'10 7/8"				X
2EBD56-2H002	Main Steam	423'10 7/8"				X
2EBD56-2H003	Main Steam	423'10 7/8"				X
2EBD56-2H004	Main Steam	423'10 7/8"				X
2EBD56-3H002	Main Steam	437' 6"				X
2EBD56-3H003	Main Steam	437' 6"				X
2EBD80H001	Steam Generator Secondary System	404' 0"				X

TABLE 3.7-4a (Continued)

SAFETY RELATED MECHANCIAL SHOCK SUPPRESSORS (SNUBBERS)[a]

SNUBBER NUMBER	LOCATION	ELEVATION	SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN[b]	SNUBBER ESPECIALLY DIFFICULT TO REMOVE	SNUBBERS INACCESSIBLE DURING NORMAL OPERATION	SNUBBERS ACCESSIBLE DURING NORMAL OPERATION
2FCC1H8	Pressurizer Relief Piping	412' 2 3/4"			X	
2FCC1H9	Pressurizer Relief Piping	401' 9"			X	
2FCC1H10	Pressurizer Relief Piping	401' 9"			X	
2FCC1H11	Reactor Miscellaneous	398' 3"			X	
2FCC1H12	Reactor Miscellaneous	358'11"			X	
2FCC1H22 (A)	Pressurizer Relief Piping	416'11 11/16"			X	
2FCC1H22 (B)	Pressurizer Relief Piping	416'11 11/16"			X	
2FCC1H23	Pressurizer Relief Piping	416'11 11/16"			X	
2FCC1H24 (A)	Pressurizer Relief Piping	413'10 1/16"			X	
2FCC1H24 (B)	Pressurizer Relief Piping	413'10 1/16"			X	
2FCC2H5	Pressurizer Relief Piping	394' 6"			X	
2FCC2H6	Pressurizer Relief Piping	386' 6"			X	
2FCC2H8	Pressurizer Relief Piping	416'11 11/16"			X	
2FCC2H9	Pressurizer Relief Piping	415' 7 1/2"			X	
2FCC2H12	Pressurizer Relief Piping	412' 9 7/16"			X	
2FCC2H13	Pressurizer Relief Piping	412' 9 7/16"			X	
2FCC2H16	Pressurizer Relief Piping	409' 2 3/4"			X	
2GBD75H3	Steam Relief Stacks to Atmosphere					X
2GBD76H3	Steam Relief Stacks to Atmosphere	445' 0 1/4"				X
2GBD76H5	Steam Relief Stacks to Atmosphere	441' 8"				X
2GCB2H3	Safety Injection	318' 6 3/4"				X
2GCB2H22	Safety Injection	329' 4 3/4"				X
2GCB3H24	Safety Injection	329' 9"				X
2GCB5H21	Safety Injection	347' 6"			X	
2GCB5H23 (A)	Safety Injection	342' 3"				X
2GCB5H23 (B)	Safety Injection	342' 3"				X
2GCB5H26	Safety Injection	348' 3"				X
2GCB5H28	Safety Injection	349' 0"				X
2GCB5H31 (A)	Safety Injection	318' 6 3/4"				X
2GCB5H31 (B)	Safety Injection	318' 6 3/4"				X
2GCB9H24	Safety Injection	326' 3"				X
2GCB10H5	Containment Spray	330' 6 1/2"				X
2GCB11H5	Spray Pump 2P35B Discharge	329' 6 3/4"				X
2GCB513H2	Auto. Pressurizer Vent Line	415' 5"			X	

TABLE 3.7-4a (Continued)

SAFETY RELATED MECHANCIAL SHOCK SUPPRESSORS (SNUBBERS)[a]

SNUBBER NUMBER	LOCATION	ELEVATION	SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN[b]	SNUBBER ESPECIALLY DIFFICULT TO REMOVE	SNUBBERS INACCESSIBLE DURING NORMAL OPERATION	SNUBBERS ACCESSIBLE DURING NORMAL OPERATION
2GCB514H2	Auto. Pressurizer Vent Line	415' 5"			X	
2GCB514H3	Auto. Pressurizer Vent Line	415' 5"			X	
2HBC41H20	SW from 2HBC63 to 2VE1A	391' 7 3/4"				X
2HBC98H9	SW from 2HBC64 to 2VE1B	391' 7 3/4"				X
2HBC103H17	Service Water Supply	367'10"			X	
2HBC103H18	Service Water Supply	370' 2 3/4"			X	
2HBC103H20	Service Water Supply	370' 3"			X	
2HBC103H22	Service Water	370' 4"			X	
2HBC104H16	Service Water	371' 9"			X	
2HBC104H18	Service Water	371' 9"			X	
2HBC105H4	Service Water Return	371' 1 7/8"			X	
2HBC105H14 (A)	Service Water	367' 5 3/4"			X	
2HBC105H14 (B)	Service Water	367' 5 3/4"			X	
2HBC105H16	Service Water Branches	371'10"			X	
2HBC105H17	Service Water Branches	371'10"			X	
2HBC105H18	Service Water Branches	371'10"			X	
2HBC105H27	Service Water	389' 0"			X	
2HBD750H6	Main Feedwater	371' 4"				X
2HBD750H9	Main Feedwater	373' 1 9/16"				X
2HCB3H170	Containment Spray Header	351' 5 1/4"			X	
2HCB3H177	Containment Spray	421' 6"			X	
2HCB4H176	Containment Spray	347' 6"			X	
2HCB4H179	Containment Spray	347' 6"			X	
2HCB4H188 (A)	Containment Spray	347' 6"			X	
2HCB4H188 (B)	Containment Spray	347' 6"			X	
2HCB4H189	Containment Spray	347' 6"			X	
2HCB4H190	Containment Spray	349' 0"			X	
2HCB4H194	Containment Spray	356' 7"			X	
2HCB13H14 (A)	Containment Spray	320'10"			X	
2HCB13H14 (B)	Containment Spray	320'10"			X	
2HCB15H15 (A)	ESFAS Pump Suction and Vent Pump	320' 7 7/8"				X
2HCB15H15 (B)	ESFAS Pump Suction and Vent Pump	320' 7 7/8"				X
2HCB27H7 (A)	Containment Spray	326' 6"				X
2HCB27H7 (B)	Containment Spray	326' 6"				X

TABLE 3.7-4a (Continued)

SAFETY RELATED MECHANCIAL SHOCK SUPPRESSORS (SNUBBERS)[a]

SNUBBER NUMBER	LOCATION	ELEVATION	SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN[b]	SNUBBER ESPECIALLY DIFFICULT TO REMOVE	SNUBBERS INACCESSIBLE DURING NORMAL OPERATION	SNUBBERS ACCESSIBLE DURING NORMAL OPERATION
2HCC53H9	Fuel Pool System	351' 6"				X
2HCC53H10	Fuel Pool System	347' 8"				X
2HCC53H14	Fuel Pool System	335' 0"				X
2HCC53H15	Fuel Pool System	343' 6"				X
2HCC77H6	Reactor Coolant Drain	336' 6"			X	
2HCC77H7	Reactor Coolant Drain	336' 6"			X	
2JBD201H8 (A)	Diesel and Fuel Oil	380'10 9/16"				X
2JBD201H8 (B)	Diesel and Fuel Oil	380'10 9/16"				X
2JBD201H9	Diesel and Fuel Oil	380'10 9/16"				X
2JBD201H11 (A)	Diesel and Fuel Oil	380' 7 1/16"				X
2JBD201H11 (B)	Diesel and Fuel Oil	380' 7 1/16"				X
2JBD202H8 (A)	Diesel and Fuel Oil	381'11 1/2"				X
2JBD202H8 (B)	Diesel and Fuel Oil	381'11 1/2"				X
2JBD202H9	Diesel and Fuel Oil	381'11 1/2"				X
2JBD202H11 (A)	Diesel and Fuel Oil	381' 3"				X
2JBD202H11 (B)	Diesel and Fuel Oil	381' 3"				X

TABLE 3.7-4a (Continued)

TABLE NOTATION

a. Snubbers may be added to safety-related systems without prior License Amendment to Table 3.7-4a provided that a revision to Table 3.7-4a is included with the next License Amendment Request.

b. Modifications to this column due to changes in high radiation areas may be made without prior License Amendment provided that a revision to Table 3.7-4a is included with the next License Amendment Request.

following all credible accident conditions. The OPERABILITY of this system in conjunction with control room design provisions is based on limiting the radiation exposure to personnel occupying the control room to 5 rem or less whole body, or its equivalent. This limitation is consistent with the requirements of General Design Criteria 19 of Appendix "A", 10 CFR 50.

3/4.7.8 SHOCK SUPPRESSORS (SNUBBERS)

All snubbers are required 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 non-safety-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 systems. Therefore, the required inspection interval varies inversely with the observed snubber failure 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 the 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.

To provide further assurance of snubber reliability, a representative sample of the installed snubbers will be functionally tested during plant shutdowns at 18 month intervals. These tests will include stroking of the snubbers to verify proper piston movement, lock-up and bleed. Observed failures of these sample snubbers will require functional testing of additional units. To minimize personnel exposures, snubbers installed in areas which have high radiation fields during shutdown or in especially difficult to remove locations may be exempted from these functional testing requirements provided the OPERABILITY of these snubbers was demonstrated during functional testing at either the completion of their fabrication or at a subsequent date.

3/4.7.9 SEALED SOURCE CONTAMINATION

The limitations on removable contamination for sources requiring leak testing, including alpha emitters, is based on 10 CFR 70.39(c) limits for plutonium. This limitation will ensure that leakage from byproduct, source, and special nuclear material sources will not exceed allowable intake values.

3/4.7.10 FIRE SUPPRESSION SYSTEMS

The OPERABILITY of the fire suppression systems ensures that adequate fire suppression capability is available to confine and extinguish fires occurring in any portion of the facility where safety related equipment is located. The fire suppression system consists of the water system, spray and/or sprinklers, and fire hose stations. The collective capability of the fire suppression systems is adequate to minimize potential damage to safety related equipment and is a major element in the facility fire protection program.

In the event the portions of the fire suppression systems are inoperable, alternate backup fire fighting equipment is required to be made available in the affected areas until the inoperable equipment is restored to service.

In the event the fire suppression water system becomes inoperable, immediate corrective measures must be taken since this system provides the major fire suppression capability of the plant. The requirement for a twenty-four hour report to the Commission provides for prompt evaluation of the acceptability of the corrective measures to provide adequate fire suppression capability for the continued protection of the nuclear plant.

f. Records of reactor tests and experiments.

g. Records of training and qualification for current members of the unit staff.

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

i. Records of Quality Assurance activities required by the QA Manual.

j. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59.

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

l. Records of changes to the Core Protection Calculator System (CPCS) SOFTWARE. Changes to the CPCS SOFTWARE shall be made in accordance with methods approved by the NRC. These records shall include the following:

   1. Purpose of change.

   2. Detailed description of change including algorithms, changes to the assembly listings, checksums and disk identification numbers.

   3. Summary of validation test results.

m. Records of Environmental Qualification which are covered under the provisions of paragraph 6.12.

n. Records of the service lives of the seals of all hydraulic snubbers listed on Tables 3.7-4, including the date at which the service life commences and associated installation and maintenance records.

6.11 RADIATION PROTECTION PROGRAM

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

6.12 ENVIRONMENTAL QUALIFICATION

6.12.1 By no later than June 30, 1982 all safety-related electrical equipment in the facility shall be qualified in accordance with the provisions of: Division of Operating Reactors "Guidelines for Evaluating Environmental Qualification of Class IE Electrical Equipment in Operating Reactors" (DOR Guidelines); or NUREG-0588 "Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment", December 1979. Copies of these documents are attached to Order for Modification of License NPF-6 dated October 24, 1980.

6.12.2 By no later than December 1, 1980, complete and auditable records must be available and maintained at a central location which describe the environmental qualification method used for all safety-related electrical equipment in sufficient detail to document the degree of compliance with the DOR Guidelines or NUREG-0588. Thereafter, such records should be updated and maintained current as equipment is replaced, further tested, or otherwise further qualified.

6.13 HIGH RADIATION AREA

6.13.1 In lieu of the "control device" or "alarm signal" required by paragraph 20.203(c)(2) of 10 CFR 20, each high radiation area (as defined in 20.202(b)(3) of 10 CFR 20) in which the intensity of radiation is 1000 mrem/hr or less shall be barricaded and conspicuously posted as a high radiation area and entrance thereto 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 present 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.

6.13.2 The requirements of 6.13.1, 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.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 62 TO FACILITY OPERATING LICENSE NO. NPF-6

ARKANSAS POWER & LIGHT COMPANY

ARKANSAS NUCLEAR ONE, UNIT 2

DOCKET NO. 50-368

INTRODUCTION

A letter containing model Standard Technical Specifications was sent to all power reactor licensees, except systematic evaluation program (SEP) licensees, on November 20, 1980 (Ref. 1). This letter requested the upgrading of safety-related hydraulic snubber (shock suppressor) testing requirements and the inclusion of mechanical snubber operability and testing requirements into Technical Specifications.

The Arkansas Power and Light Company (AP&L) response (Ref. 2) for Arkansas Nuclear One, Unit 2 (ANO-2) proposed that an industry standard, ANSI/ASME OM4 (Ref. 3), under development should be used as the basis for the Technical Specification revision. The NRC staff indicated (Refs. 4-6) that the industry standard, ANSI/ASME OM4, was not acceptable and requested proposed Technical Specifications modeled after the Standard Technical Specifications. AP&L responded to NRC concerns in several succeeding letters (Refs. 7-14).

A meeting between the NRC staff and AP&L personnel was held on August 23, 1983, to resolve differences. Among the positions, agreements, and actions discussed in the meeting minutes (Ref. 15) were (a) the NRC staff prefers the classification of snubbers as accessible or inaccessible; (b) the NRC staff desires that all snubbers, regardless of size, should be subject to testing; (c) the NRC staff provided AP&L with a copy of the McGuire snubber operability and surveillance Technical Specifications, which are of a more recent version than the November 20, 1980, model Technical Specifications and which contain features acceptable to both the NRC staff and AP&L; and (d) AP&L agreed to submit revised Technical Specifications based on the current Standard Technical Specifications format approach as exemplified by the McGuire Technical Specifications within 60 days of the end of the third ANO-2 refueling outage.

BACKGROUND

In the time period of 1973 to 1975, numerous discoveries of inoperable snubbers resulted in surveillance requirements being placed in Technical Specifications for operating nuclear power plants. However, several deficiencies were identified after the original requirements had been in force for several years. These deficiencies were:

1. Mechanical snubbers were not included in the original requirements.

   Inasmuch as mechanical snubbers were not subject to any surveillance requirements and because the most likely failure of a mechanical snubber

is permanent lock-up, which is a failure mode that can be harmful to the associated system even during normal plant operations, surveillance testing is clearly warranted.

2. In-service testing of large snubbers was not required.

   When the hydraulic snubber surveillance requirements were first drafted, a compromise was made that limited the testing of snubbers to those with rated capacities of not more than 50,000 pounds because of the (a) limited capacity of the available test equipment and (b) poor understanding of some test parameters at the snubber-rated load. Since then, greater equipment capacity and better understanding of parametric correlations have become available.

3. The use of new types of seal materials required NRC approval.

   The original problems with hydraulic snubbers were primarily attributed to leaking seals. Most seal materials of the 1973 vintage did not have adequate resistance to the thermal and gamma radiation conditions of their service environments. Ethylene propylene was the first material that could provide a reasonable service life for those seals. In order to discourage the use of unproven material for those seals, the words "NRC approved material" were used in the Technical Specifications; and, on many occasions, staff members were asked to approve different seal materials. Consequently, since the basis for the approval was not defined, the development of better seal materials by the industry was actually discouraged.

4. In-service test requirements were not clearly defined.

   The poorly defined acceptance criteria in the earlier version of the testing requirements resulted in nonuniform interpretation and implementation. In some cases, snubbers were tested without reference to acceptance criteria, resulting in completed tests of questionable value.

5. In-place, in-service testing was not permitted.

   Testing of snubbers was usually accomplished by removing snubbers from their installed positions, mounting them on a testing rig, conducting the test, removing them from the rig, and reinstalling them in their service positions. Snubbers were occasionally damaged during this process, and this unfortunately defeated the purpose for conducting the tests. New methods and equipment that permit in-place testing minimize potential snubber damage and utility outlays.

From these shortcomings, it was concluded that the snubber surveillance requirements for the Technical Specifications should be revised. This issue was then categorized into two Multi-Plant Action Items: B-17, "Technical

Specifications Surveillance for Hydraulic Snubbers," and B-22, "Technical Specifications Surveillance for Mechanical Snubbers." Generic guidance was sent to AP&L and others via NRC's letter dated November 20, 1980.

Subsequent to the NRC/AP&L meeting on August 23, 1983, the NRC staff issued Generic Letter 84-13 (Ref. 16), which officially updated the model Technical Specifications contained in the November 20, 1980, letter. Pertinent to the AP&L submittal for ANO-2 Technical Specifications, Generic Letter 84-13 stated that tabular listings of snubbers would no longer be required in plant Technical Specifications.

EVALUATION

On May 19, 1984, AP&L submitted (Ref. 17) revised snubber Technical Specifications for ANO-2. These specifications were patterned after the McGuire Technical Specifications. AP&L, however, did not elect to delete snubber tables from the Technical Specifications as permitted by Generic Letter 84-13. AP&L has requested that the proposed Technical Specifications be made effective concurrent with the next refueling outage (i.e., number 4). This request is acceptable. The modified Technical Specifications provide for the following:

1. Snubber categorization by number, system, elevation, and accessibility.

2. Mechanical and hydraulic snubber surveillance and limiting conditions for operation.

3. Testing of all snubber types irrespective of capacity.

4. Provision for in-place, in-service testing.

5. Clearly defined in-service test requirements.

6. A seal service life monitoring program that assures all snubbers are functioning within their service life.

The NRC staff examined these and other proposed alternatives (i.e., testing frequency, sampling distribution, etc.) to the ANO-2 Technical Specifications and concluded that the AP&L submittal is responsive to the NRC's request and consistent with present NRC positions and requirements and that these improvements are, therefore, acceptable.

ENVIRONMENTAL CONSIDERATION

This amendment involves changes in inspection and surveillance requirements and in the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to

10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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Dated: January 29, 1985

REFERENCES

1. D. G. Eisenhut (NRC) letter to Power Reactor Licensees (except SEP Licensees), "Technical Specification Revision for Snubber Surveillance," November 20, 1980.

2. D. C. Trimble (AP&L) letter to D. G. Eisenhut (NRC), April 1, 1981.

3. "Examination and Performance Testing of Nuclear Power Plant Dynamic Restraints (Snubbers)," American Society of Mechanical Engineers Standard ANSI/ASME OM4-1982.

4. R. A. Clark (NRC) and J. F. Stolz (NRC) letter to W. Cavanaugh (AP&L), June 17, 1981.

5. R. A. Clark (NRC) and J. F. Stolz (NRC) letter to W. Cavanaugh (AP&L), September 21, 1982.

6. R. A. Clark (NRC) and J. F. Stolz (NRC) letter to J. M. Griffin (AP&L), May 9, 1983.

7. D. C. Trimble (AP&L) letter to R. A. Clark (NRC) and J. F. Stolz (NRC), July 17, 1981.

8. D. C. Trimble (AP&L) letter to J. F. Stolz (NRC) and R. A. Clark (NRC), October 28, 1981.

9. D. C. Trimble (AP&L) letter to J. F. Stolz (NRC) and R. A. Clark (NRC), December 14, 1981.

10. J. R. Marshall (AP&L) letter to J. F. Stolz (NRC) and R. A. Clark (NRC), August 31, 1982.

11. J. R. Marshall (AP&L) letter to J. F. Stolz (NRC) and R. A. Clark (NRC), November 26, 1982.

12. J. R. Marshall (AP&L) letter to J. F. Stolz (NRC) and R. A. Clark (NRC), February 28, 1983.

13. J. R. Marshall (AP&L) letter to J. F. Stolz (NRC) and R. A. Clark (NRC), June 10, 1983.

14. J. M. Griffin (AP&L) letter to J. F. Stolz (NRC) and R. A. Clark (NRC), June 30, 1983.

15. G. S. Vissing (NRC) summary of meeting, September 30, 1983.

16. D. G. Eisenhut (NRC) letter to Power Reactor Licensees (except SEP Licensees) and Applicants for Licenses, "Technical Specification for Snubbers (Generic Letter 84-13)," May 3, 1984.

17. J. M. Griffin (AP&L) letter to J. R. Miller (NRC), May 19, 1984.