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LTR RE OUR 6-2-76 LTR NOTORIZED 6-22-76..... TRANS THE FOLLOWING.....

ENCLOSURE

LK
LSUBMITTAL CONCERNING THE TESTING AND SURVEILLANCE REQUIREMENTS FOR HYDRAULIC SHOCK SUPPRESSORS.....

ACKNOWLEDGED

DO NOT REMOVE

PLANT NAME: OCONEE 1-2-3

2 pg | 15 Encl

FOR ACTION/INFORMATION ENVIRO 6-28-76 RB

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NRC FORM 195 (2-76)

Regulatory Docket File

DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

TELEPHONE: AREA 704
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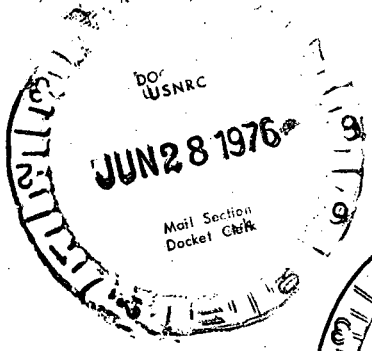

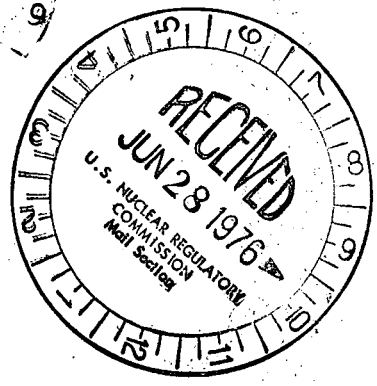

June 22, 1976

Mr. Benard C. Rusche, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. A. Schwencer, Chief
Operating Reactors Branch No. 1

RE: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287

Dear Sir:

Your letter dated June 2, 1976 requested that we modify our February 19, 1976 submittal concerning the testing and surveillance requirements for hydraulic shock suppressors. Pursuant to the provisions of 10CFR50.90, a revision to the Oconee Nuclear Station Technical Specifications is requested which will provide for functional testing of a representative sample of suppressors at each refueling outage. The revisions to our February 19, 1976 submittal are indicated by vertical lines in the margin of the attached Technical Specification replacement pages.

Very truly yours,

William O. Parker, Jr.

MST:ge

6481

WILLIAM O. PARKER, JR., being duly sworn, states that he is Vice President of Duke Power Company; that he is authorized on the part of said Company to sign and file with the Nuclear Regulatory Commission this request for amendment of the Oconee Nuclear Station Technical Specifications, Appendix A to Facility Operating Licenses DPR-38, DPR-47 and DPR-55; and that all statements and matters set forth therein are true and correct to the best of his knowledge.

William O. Parker, Jr., Vice President

ATTEST

John C. Goodman, Jr.
Assistant Secretary

Subscribed and sworn to before me this 22nd day of June, 1976.

Notary Public

My Commission Expires:

October 24, 1977

3.14 HYDRAULIC SHOCK SUPPRESSORS

Applicability

Applies to all modes of operation except cold shutdown and refueling shutdown.

Objective

To assure piping integrity in the event of a severe transient or seismic disturbance.

Specification

3.14.1 Except as permitted by 3.14.2 and 3.14.3, the reactor shall not be heated above 200°F unless all hydraulic shock suppressors listed in Table 4.18-1 are operable.

3.14.2 If a hydraulic shock suppressor is determined to be inoperable, continued operation is permitted for a period not to exceed 72 hours, unless the suppressor is sooner made operable.

3.14.3 If the requirements of 3.14.1 and 3.14.2 cannot be met, the reactor shall be in a cold shutdown condition within 36 hours.

Bases

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 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 hydraulic suppressors required to protect the primary coolant system or any other safety system or component be operable during reactor operation.

Since the suppressor protection is required only during relatively 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 3.14.1 prohibits startup with inoperable suppressors.

Table 4.1-2
MINIMUM EQUIPMENT TEST FREQUENCY

	Item	Test	Frequency
1.	Control Rod Movement(1)	Movement of Each Rod	Bi-Weekly
2.	Pressurizer Safety Valves	Setpoint	50% Annually
3.	Main Steam Safety Valves	Setpoint	25% Annually
4.	Refueling System Interlocks	Functional	Prior to Refueling
5.	Main Steam Stop Valves(1)	Movement of Each Stop Valve	Monthly
6.	Reactor Coolant System Leakage(2)	Evaluate	Daily
7.	Condenser Cooling Water System Gravity Flow Test	Functional	Annually
8.	High Pressure Service Water Pumps and Power Supplies	Functional	Monthly
9.	Spent Fuel Cooling System	Functional	Prior to Refueling
10.	High Pressure and Low Pressure Injection System(3)	Vent Pump Casings	Monthly and Prior to Testing
11.	Reactor Coolant System Flow	Validate Flow to be at least: Unit 1 141.30×10^6 lb/hr Unit 2 131.32×10^6 lb/hr Unit 3 131.32×10^6 lb/hr	Once Per Fuel Cycle

(1) Applicable only when the reactor is critical

(2) Applicable only when the reactor coolant is above 200°F and at a steady-state temperature and pressure.

(3) Operating pumps excluded.

4.18 HYDRAULIC SHOCK SUPPRESSORS

Applicability

Applies to hydraulic shock suppressors used to protect the Reactor Coolant System or other safety-related systems.

Objective

To verify that required hydraulic shock suppressors are operable.

Specification

4.18.1 All hydraulic shock suppressors listed in Table 4.18-1 shall be visually inspected. This inspection shall include as a minimum, hydraulic fluid reservoir, fluid connections, and linkage connections to the piping and anchor to verify suppressor operability in accordance with the following schedule:

Number of Suppressors Found Inoperable During Last Inspection	Next Required Inspection Interval
0	18 months ± 25%
1	12 months ± 25%
2	6 months ± 25%
3,4	4 months ± 25%
5,6,7	2 months ± 25%
≥8	1 month ± 25%

Note: (1) The required inspection interval shall not be lengthened more than one step per inspection.

Note: (2) Suppressors may be categorized in two groups, "accessible" or "inaccessible," based on their accessibility during reactor operation. These two groups may be inspected independently according to the above schedule.

4.18.2 A representative sample of 10 hydraulic shock suppressors or approximately 10 percent of the suppressors installed, whichever is less, shall be functionally tested for operability each refueling outage. This test shall include verification of proper piston movement, lockup and bleed. For each suppressor determined to be inoperable, an additional 10 percent or 10 suppressors, whichever is less, shall be tested until no more failures are found or all suppressors have been tested. Suppressors with a rated capacity greater than 50,000 lbs. are exempted from this requirement.

Bases

All safety-related hydraulic suppressors are visually inspected for overall integrity and operability. The inspection will include verification of proper orientation, adequate hydraulic fluid level and proper attachment of suppressor to piping structures.

The inspection frequency is based upon maintaining a constant level of suppressor protection. Thus, the required inspection interval varies inversely with the observed inoperable suppressor. The number of inoperable suppressors found during a required inspection determines the time interval for the next required inspection. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original required time interval has elapsed may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

TABLE 4.18-1
Unit 1 Safety Related Hydraulic Shock Suppressors

Sketch/Hanger No.	System	Suppressor Inaccessible During Normal Operation	Suppressor Accessible During Normal Operation
1-124	Main Steam Line (01A)		X
1-125			X
1-127			X
1-128			X
1-129			X
1-130			X
1-132			X
1-134			X
1-135			X
1-147			X
1-149			X
1-151			X
1-152			X
H 11A			X
H 12A		X	
H 10B		X	
H 11B		X	
		X	
1-941	Main Steam Bypass to Condenser (01A-1)		X
1-944			X
1-945			X
1-3135	Main Steam Supply to Auxiliary Equipment (01A-3)		X
1-1305	Main Steam Supply to Emergency Feedwater Pump Turbine (01A-4)		X
1-1310			X
1-1315			X
H 7B	Main Feedwater Line (03)	X	
H 10A		X	

TABLE 4.18-1

Unit 1 Safety Related Hydraulic Shock Suppressors

Sketch/Hanger No.	System	Suppressor Inaccessible During Normal Operation	Suppressor Accessible During Normal Operation
1-1289	Emergency Feedwater Line (03A)		X
1-1292			X
1-1293			X
1-1294			X
1-1295			X
1-1296			X
1-1297			X
1-1298			X
1-1299			X
1-5600			X
1-5601			X
1-5602			X
1-5603			X
1-5604			X
1-5605			X
1-5606			X
H 7B		X	
1-4100	Reactor Coolant System (50)	X	
1-4102		X	
1-4104		X	
1-4105		X	
1-4107		X	
1-4109		X	
1-4111		X	
1-4112		X	
1-4113		X	
1-4115		X	
1-4116		X	
1-4117		X	
H 1		X	
H 3		X	
H 4		X	
H 5		X	

TABLE 4.18-1

Unit 1 Safety Related Hydraulic Shock Suppressors

Sketch/Hanger No.	System	Suppressor Inaccessible During Normal Operation	Suppressor Accessible During Normal Operation
H 7	Reactor Coolant System (50) (Continued)	X	
H 9		X	
H 10		X	
H 11		X	
H 12		X	
H 1A		X	
H 2A		X	
H 3A		X	
H 17A	High Pressure Injection System (51)	X	
H 1E		X	
H 5 (2,NS-EW)	Low Pressure Injection System (53)	X	
H 40C		X	
H 41C		X	
1-2139	Reactor Building Spray System (54)		X
1-2149			X
H 9A		X	
H 9B		X	
H 5	Pressurizer Relief Valve Discharge (57)	X	
H 6		X	
H 9		X	
H 10		X	
H 11		X	
H 14		X	
H 15		X	
H 17		X	
H 18		X	
H 22		X	
H 26		X	
H 27		X	

TABLE 4.18-1
Unit 2 Safety Related Hydraulic Shock Suppressors

Sketch/Hanger No.	System	Suppressor Inaccessible During Normal Operation	Suppressor Accessible During Normal Operation
2-124	Main Steam Line (01A)		X
2-125			X
2-127			X
2-128			X
2-129			X
2-130			X
2-132			X
2-134			X
2-135			X
2-147			X
2-149			X
2-151			X
2-152			X
H 2A		X	
H 8A		X	
H 2B		X	
H 8B		X	
2-941	Main Steam Bypass to Condenser (01A-1)		X
2-944			X
2-945			X
2-3135	Main Steam Supply to Auxiliary Equipment (01A-3)		X
2-1309	Main Steam Supply to Emergency Feedwater Turbine (01A-4)		X
2-1322			X
2-1323			X
2-1324			X
2-1326			X
2-1327			X
2-1329			X
2-1333			X

TABLE 4.18-1
Unit 2 Safety Related Hydraulic Shock Suppressors

Sketch/Hanger No.	System	Suppressor Inaccessible During Normal Operation	Suppressor Accessible During Normal Operation
H 6A & H 7A	Main Feedwater Line (03)	X	
H 6B		X	
2-1289	Emergency Feedwater Line (03A)		
2-5656			X
2-5663			X
2-5685			X
2-5691			X
H 1A			X
H 3A		X	
		X	
H 1B		X	
2-4100	Reactor Coolant System (50)		
2-4105		X	
2-4107		X	
2-4109		X	
2-4111		X	
2-4112		X	
2-4113		X	
2-4114		X	
2-4115		X	
2-4117		X	
2-4119		X	
2-4120		X	
H 1		X	
H 3		X	
H 4		X	
H 5		X	
H 7		X	
H 8		X	
H 9		X	

TABLE 4.18-1
Unit 2 Safety Related Hydraulic Shock Suppressors

Sketch/Hanger No.	System	Suppressor Inaccessible During Normal Operation	Suppressor Accessible During Normal Operation
H 10	Reactor Coolant System (50) (Continued)	X	
H 11		X	
H 12		X	
H 1A		X	
H 2A		X	
H 3A		X	
2-4482	High Pressure Injection System (51)		X
H 2A		X	
H 1E		X	
2-2086	Low Pressure Injection (53)		
2-2089			X
2-4206			X
H 3			X
H 1 C		X	
		X	
2-2139	Reactor Building Spray System (54)		
2-2149			X
2-2172			X
2-2174			X
H 9A			X
H 9B		X	
		X	
H 9	Spent Fuel Cooling (56)		
H 10		X	
		X	

TABLE 4.18-1
Unit 2 Safety Related Hydraulic Shock Suppressors

Sketch/hanger No.	System	Suppressor Inaccessible During Normal Operation	Suppressor Accessible During Normal Operation
H 7	Pressurizer Relief Valve Discharge (57)	X	
H 9		X	
H 12		X	
H 13		X	
H 15		X	
H 16		X	
H 17		X	
H 20		X	
H 21		X	●
H 23		X	
H 25		X	
H 26		X	

TABLE 4.18-1

Unit 3 Safety Related Hydraulic Shock Suppressors

Sketch/Hanger No.	System	Suppressor Inaccessible During Normal Operation	Suppressor Accessible During Normal Operation
3-124	Main Steam Line (01A)		X
3-125			X
3-126			X
3-128			X
3-129			X
3-130			X
3-131			X
3-132			X
3-133			X
3-135			X
3-147			X
3-149			X
H 2A			X
H 8A		X	
H 2B		X	
H 8B		X	
		X	
3-956	Main Steam Bypass to Condenser (01A-1)		
3-957			X
3-959			X
3-960			X
			X
3-3109	Main Steam Supply to Auxiliary Equipment (01A-3)		X
3-1311	Main Steam Supply to Emergency Feedwater Pump Turbine (01A-4)		X
3-1312			X
3-1314			X
3-1316			X
3-1317			X
3-1318			X
3-1319			X
3-1320			X

TABLE 4.18-1
Unit 3 Safety Related Hydraulic Shock Suppressors

Sketch/Hanger No.	System	Suppressor Inaccessible During Normal Operation	Suppressor Accessible During Normal Operation
H 6A & H 7A	Main Feedwater Line (03)	X	
H 6B		X	
3-1274	Emergency Feedwater Line (03A)		X
3-1379			X
3-1280			X
3-5606			X
3-5624			X
3-5628			X
H 1A		X	
3-4100	Reactor Coolant System (50)		X
3-4105			X
3-4107			X
3-4109			X
3-4111			X
3-4112			X
3-4113			X
3-4114			X
3-4115			X
3-4117			X
3-4119			X
3-4120			X
H 1			X
H 3		X	
H 4		X	
H 5		X	
H 7		X	
H 8		X	
H 9		X	
H 10		X	
H 11		X	
H 12		X	
H 1A		X	
H 2A		X	
H 3A		X	

TABLE 4.18-1
Unit 3 Safety Related Hydraulic Shock Suppressors

Sketch/Hanger No.	System	Suppressor Inaccessible During Normal Operation	Suppressor Accessible During Normal Operation
3-2214	High Pressure Injection System (51)		X
H 2A		X	
H 1E		X	
3-4271	Low Pressure Injection System (53)		
3-4273			X
3-4280			X
3-4281			X
3-4282			X
3-4287			X
3-4288			X
H 3			X
H 1C		X	
		X	
3-2140	Reactor Building Spray System (54)		
3-2165			X
3-2174			X
H 9A			X
H 9B		X	
		X	
3-5700	Spent Fuel Cooling System (56)		
3-5703			X
3-5707			X
3-5709			X
3-5712			X
3-5716			X
3-5718			X
H 9			X
H 10		X	
		X	

TABLE 4.18-1

Unit 3 Safety Related Hydraulic Shock Suppressors

Sketch/Hanger No.	System	Suppressor Inaccessible During Normal Operation	Suppressor Accessible During Normal Operation
H 7	Pressurizer Relief Valve Discharge (57)	X	
H 9		X	
H 12		X	
H 13		X	
H 15		X	
H 16		X	
H 17		X	
H 20		X	
H 21		X	
H 23		X	
H 25		X	
H 26		X	