

50-269/270/287

## NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL

FILE NUMBER

TO: Mr Rasche

FROM: Duke Power Company  
Raleigh, NC  
W O Parker JrDATE OF DOCUMENT  
2-19-76

DATE RECEIVED 2-27-76

☒ LETTER  
☒ ORIGINAL  
☐ COPY☒ NOTORIZED  
☒ UNCLASSIFIED

PROP

INPUT FORM

NUMBER OF COPIES RECEIVED  
3 signed

## DESCRIPTION

Ltr notarized 2-19-76....trans the following:

## ENCLOSURE

Amdt to OL/Change to Tech Specs: Consisting of  
revision to tech specs with regard to SNUBBERS  
.....(40 cys encl rec'd)

PLANT NAME: Oconee 1-3

## SAFETY

## FOR ACTION/INFORMATION

ENVIRO 3-1-76 bbf

ASSIGNED AD :		ASSIGNED AD :
BRANCH CHIEF :	Purple (5)	BRANCH CHIEF :
PROJECT MANAGER:	Zech	PROJECT MANAGER :
LIC. ASST. :	Sheppard	LIC. ASST. :

## INTERNAL DISTRIBUTION

REG FILE	SYSTEMS SAFETY	PLANT SYSTEMS	ENVIRO TECH
NRC PDR	HEINEMAN	TEDESCO	ERNST
I & E (2)	SCHROEDER	BENAROYA	BALLARD
OELD		LAINAS	SPANGLER
GOSSICK & STAFF	ENGINEERING	IPPOLITO	
MIPC	MACCARY		SITE TECH
CASE	KNIGHT	OPERATING REACTORS	GAMMILL
HANAUER	SIHWEIL	STELLO	STEPP
HARLESS	PAWLICKI		HULMAN
		OPERATING TECH	
PROJECT MANAGEMENT	REACTOR SAFETY	EISENHUT	SITE ANALYSIS
BOYD	ROSS	SHAO	VOLLMER
P. COLLINS	NOVAK	BAER	BUNCH
HOUSTON	ROSZTOCZY	SCHWENCER	J. COLLINS
PETERSON	CHECK	GRIMES	KREGER
MELTZ			
HELTEMES	AT & I	SITE SAFETY & ENVIRO	
SKOVHOLT	SALTZMAN	ANALYSIS	
	RUTBERG	DENTON & MULLER	

## EXTERNAL DISTRIBUTION

## CONTROL NUMBER

LPDR: Waltham, SC	NATL LAB	BROOKHAVEN NATL LAB	1894
TIC	REG. V-IE	ULRIKSON(ORNL)	
NSIC	LA PDR		
ASLB	CONSULTANTS		
ACRS 16 HOLDING/SENT TO LA Sheppard			

# DUKE POWER COMPANY

POWER BUILDING

422, SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.  
VICE PRESIDENT  
STEAM PRODUCTION

REGULATORY

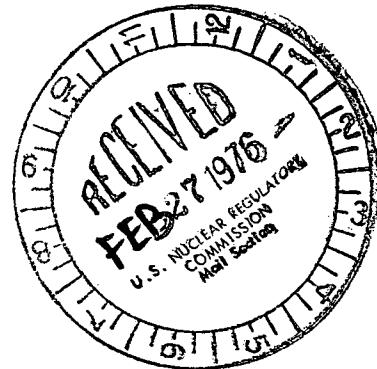
TELEPHONE: AREA 704  
373-4083

February 19, 1976

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

Attention: Mr. R. A. Purple, Chief  
Operating Reactor Branch #1

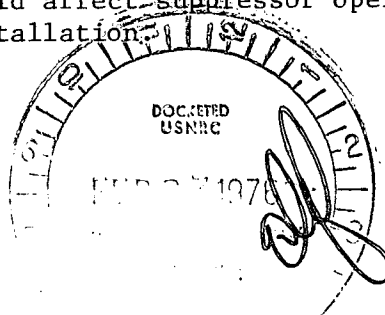
Re: Oconee Nuclear Station  
Docket Nos. 50-269, -270, -287



Dear Sir:

Your letter dated December 18, 1975 indicated various changes to model Technical Specifications relating to hydraulic shock suppressors which had previously been transmitted by your letter dated June 30, 1975. These changes resulted from review of our August 15, 1975 submittal as well as consideration of other licensee submittals and your own further review of the subject.

Pursuant to 10 CFR 50.90, please find attached a proposed amendment to the Technical Specifications for the Oconee Nuclear Station which is in basic agreement with the revised model specifications which you supplied concerning hydraulic shock suppressors. The provision for monthly testing of shock suppressors whose seal material is not compatible with the operating environment has not been included since all Oconee shock suppressors have been determined to be compatible with the operating environment. The provision for functional testing of the suppressors has not been included in our proposal. Functional testing of suppressors is performed at the vendor's factory to verify proper design, fabrication, and operation. The visual inspection of the suppressor is intended to verify continued operability of the suppressors. It is also considered that due to the internal design of the suppressors, it is extremely unlikely that a failure could occur. Oconee has not experienced a failure of a suppressor due to internal failure. In addition, suppressors which require maintenance which could affect suppressor operation will be functionally tested prior to reinstallation.



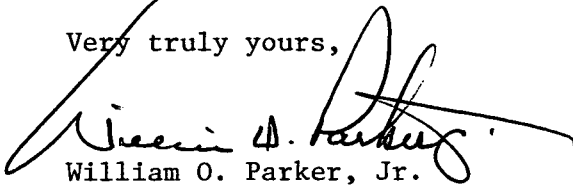
1894

Mr. Benard C. Rusche  
February 19, 1976  
Page 2

Table 4.18-1 indicates those safety related shock suppressors which are to be considered by this Technical Specification. All suppressors in the Reactor Buildings have been classified as inaccessible during normal operation due to the radiation level and temperature considerations.

Suppressor surveillance will continue as presently required in Oconee Technical Specification 4.1 until such time that this request for amendment of the Facility Operating License is approved. Suppressor surveillance subsequent to approval of this amendment will be performed within six months of the date of issuance of these technical specifications or within the previous surveillance frequency, whichever is sooner.

Very truly yours,

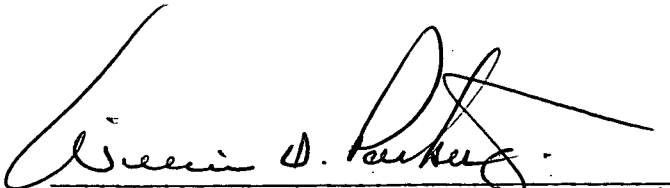
A handwritten signature in dark ink, appearing to read "William O. Parker, Jr.", is written over the typed name. The signature is fluid and cursive, with a long horizontal stroke extending to the right.

William O. Parker, Jr.

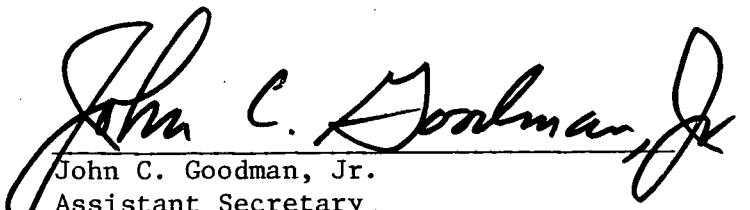
MST:mmmb

Attachment

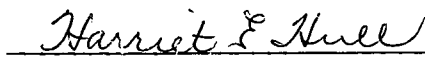
WILLIAM O. PARKER, JR., being duly sworn, states that he is Vice President of Duke Power Company; that he is authorized on the part of said Company to sign and file with the Nuclear Regulatory Commission this request for amendment of the Oconee Nuclear Station Technical Specifications, Appendix A to 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

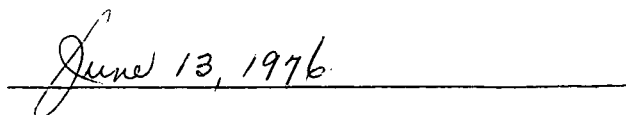
ATTEST

  
John C. Goodman, Jr.  
Assistant Secretary  
(Seal)

Subscribed and sworn to before me this 19th day of February 1976.

  
Notary Public  
(Notarial Seal)

My Commission Expires:

  
June 13, 1976

### 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

<u>Item</u>	<u>Test</u>	<u>Frequency</u>
1. Control Rod Movement <sup>(1)</sup>	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 <sup>(1)</sup>	Movement of Each Stop Valve	Monthly
6. Reactor Coolant System <sup>(2)</sup> Leakage	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

(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.

#### 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

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:

<u>Number of Suppressors Found Inoperable During Last Inspection</u>	<u>Next Required Inspection Interval</u>
0	18 months $\pm$ 25%
1	12 months $\pm$ 25%
2	6 months $\pm$ 25%
3,4	4 months $\pm$ 25%
5,6,7	2 months $\pm$ 25%
<u>&gt;8</u>	1 month $\pm$ 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.

##### 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 suppressor failures. 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 4.13-1  
Unit 1 Safety Related Hydraulic Shock Suppressors

Sketch/Tag No.	System	Suppressor	Suppressor
		Inaccessible During Normal Operation	Accessible During Normal Operation
4.18-3	Main Steam Line (01A)		X
			X
			X
			X
			X
			X
			X
			X
			X
			X
			X
			X
			X
			X
			X
			X
			X
		X	
		X	
		X	
		X	
	Main Steam Bypass to Condenser (01A-1)		X
			X
			X
	Main Steam Supply to Auxiliary Equipment (01A-3)		X
	Main Steam Supply to Emergency Feedwater Pump Turbine (01A-4)		X
			X
			X
	Main Feedwater Line (03)		
		X	
		X	

TABLE 4.18-1  
Unit 1 Safety Related Hydraulic Shock Suppressors

<u>Sketch/Hanger No.</u>	<u>System</u>	<u>Suppressor Inaccessible During Normal Operation</u>	<u>Suppressor Accessible During Normal Operation</u>
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	

4.18-4

TABLE 4.18-1  
Unit 1 Safety Related Hydraulic Shock Suppressors

<u>Sketch/Hanger No.</u>	<u>System</u>	<u>Suppressor Inaccessible During Normal Operation</u>	<u>Suppressor Accessible During Normal Operation</u>
H 7	Reactor Coolant System (50) (Continued)	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	
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	

4.18-5

TABLE 4.18-1  
Unit 2 Safety Related Hydraulic Shock Suppressors

<u>Sketch/Hanger No.</u>	<u>System</u>	<u>Suppressor Inaccessible During Normal Operation</u>	<u>Suppressor Accessible During Normal Operation</u>
2-127	Main Steam Line (01A)		X
2-128			X
2-129			X
2-130			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	
4.18-6 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

<u>Sketch/Hanger No.</u>	<u>System</u>	<u>Suppressor Inaccessible During Normal Operation</u>	<u>Suppressor Accessible During Normal Operation</u>
2-127	Main Steam Line (01A)		X
2-128			X
2-129			X
2-130			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	
4.18-6 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

4.18-7

TABLE 4.18-1  
Unit 2 Safety Related Hydraulic Shock Suppressors

<u>Sketch/Hanger No.</u>	<u>System</u>	<u>Suppressor Inaccessible During Normal Operation</u>	<u>Suppressor Accessible During Normal Operation</u>
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)		X
2-2089			X
2-4206			X
H 3		X	
H 1E		X	
2-2139	Reactor Building Spray System (54)		X
2-2149			X
2-2172			X
2-2174			X
H 9A		X	
H 9B		X	
H 9	Spent Fuel Cooling (56)	X	
H 10		X	

4.18-8

TABLE 4.18-1  
Unit 2 Safety Related Hydraulic Shock Suppressors

<u>Sketch/Hanger No.</u>	<u>System</u>	<u>Suppressor Inaccessible During Normal Operation</u>	<u>Suppressor Accessible During Normal Operation</u>
H 7	Pressurizer Relief Valve Discharge (57)	X	
H 9		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

<u>Sketch/Hanger No.</u>	<u>System</u>	<u>Suppressor Inaccessible During Normal Operation</u>	<u>Suppressor Accessible During Normal Operation</u>
4.18-10	3-124		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	
	3-956		X
	3-957		X
	3-959		X
	3-960		X
	3-3109		X
	Main Steam Supply to Auxiliary Equipment (01A-3)		
	3-1311		X
	3-1312		X
	3-1314		X
	3-1316		X
	3-1317		X
	3-1318		X
	3-1319		X
	3-1320		X
	Main Steam Supply to Emergency Feedwater Pump Turbine (01A-4)		

TABLE 4.18-1

4.18-11

TABLE 4.18-1  
Unit 3 Safety Related Hydraulic Shock Suppressors

<u>Sketch/Hanger No.</u>	<u>System</u>	<u>Suppressor Inaccessible During Normal Operation</u>	<u>Suppressor Accessible During Normal Operation</u>
3-2214 H 2A H 1E	High Pressure Injection System (51)	X X	X
3-4271 3-4273 3-4280 3-4281 3-4282 3-4287 3-4288 H 3 H 1C	Low Pressure Injection System (53)	X X	X X X X X X X
4.18-12 3-2140 3-2165 3-2174 H 9A H 9B	Reactor Building Spray System (54)	X X	X X X
3-5700 3-5703 3-5707 3-5709 3-5712 3-5716 3-5718 H 9 H 10	Spent Fuel Cooling System (56)	X X	X X X X X X X

TABLE 4.18-1  
Unit 3 Safety Related Hydraulic Shock Suppressors

<u>Sketch/Hanger No.</u>	<u>System</u>	<u>Suppressor Inaccessible During Normal Operation</u>	<u>Suppressor Accessible During Normal Operation</u>
H 7	Pressurizer Relief Valve Discharge (57)	X	
H 9		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	