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TO: Mr Giambusso	ORIG 3 signed	CC	OTHER	SENT NRC PDR XX SENT LOCAL PDR XX		
CLASS / UNCLASS XXXXXXXX / PROP INFO	INPUT	NO CYS REC'D 3		DOCKET NO: 50-269/270/287		

DESCRIPTION:
Ltr notarized 8-15-75...trans the following:

ENCLOSURES:
Amdt to OL/Change to Tech Specs: Consisting of revisions with regard to limiting conditions associated with SNUBBERS....

ACKNOWLEDGED

DO NOT REMOVE

PLANT NAME: Oconee 1, 2, & 3

FOR ACTION/INFORMATION 8-19-75 ehf

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

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

TELEPHONE: AREA 704
373-4083

August 15, 1975

Mr. Angelo Giambusso, Director
Division of Reactor Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

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

Dear Mr. Giambusso:

Mr. R. A. Purple's letter of June 30, 1975 described the incidence of hydraulic shock suppressor failure at many reactor facilities. It was requested that we provide a technical specification requiring a limiting condition for operation for hydraulic shock suppressor operability and appropriate surveillance requirements to assure satisfactory suppressor performance and reliability.

Pursuant to 10CFR 50.90, please find attached a proposed amendment to the Technical Specifications for the Oconee Nuclear Station which is in basic agreement with the model specification which you supplied concerning hydraulic shock suppressors. Note that the provision for functional testing of the suppressors has not been incorporated into our proposal. Functional testing of suppressors is performed at the vendor's factory to verify proper design and fabrication. The visual inspections and disassembly required by proposed Specification 4.18 are intended to verify the continued operability of the suppressors. Therefore, it is considered that functional testing at the station is not necessary.

Suppressor surveillance will continue as presently required in Oconee Nuclear Station Technical Specification 4.1 until such time that this request for amendment of 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,

William O. Parker, Jr.

8748

MST:vr
Attachments

Mr. Angelo Giambusso
Page 2
August 15, 1975

W. 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.
W. O. Parker, Jr., Vice President

ATTEST:

John C. Goodman Jr.
John C. Goodman, Jr.
Assistant Secretary

Subscribed and sworn to before me this 15th day of August, 1975.

Edna B. Farmer
Notary Public

My Commission Expires:
Oct. 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.

4 SURVEILLANCE REQUIREMENTS

4.0 SURVEILLANCE STANDARDS

Applicability

Applies to surveillance requirements which relate to tests, calibrations and inspections necessary to assure that the quality of structures, systems and components is maintained and that operation is within the safety limits and limiting conditions for operation.

Objective

To specify minimum acceptable surveillance requirements.

Specification

4.0.1 Surveillance of structures, systems, components and parameters shall be as specified in the various subsections to this Technical Specification section, Section 4.0, except as permitted by Technical Specifications 4.0.2 and 4.0.3 below.

4.0.2 Minimum surveillance frequencies, unless specified otherwise, may be adjusted as follows to facilitate test scheduling:

Specified Frequency	Maximum Allowable Interval Between Surveillances
Five times per week	2 days
Two times per week	5 days
Weekly	10 days
Bi-Weekly	20 days
Monthly	45 days
Bi-Monthly	90 days
Quarterly	135 days
Semiannually	270 days
Annually	18 months
18 Months	24 months

4.0.3 If conditions exist such that surveillance of an item is not necessary to assure that operation is within the safety limits and limiting conditions for operation, surveillance need not be performed if such conditions continue for a length of time greater than the specified surveillance interval. Surveillance waived as a result of this specification shall be performed prior to returning to conditions for which the surveillance is necessary to assure that operation is within safety limits and limiting conditions for operation.

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[2] 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.

4.17 (RESERVED)

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 whose seal material has been demonstrated by operating experience, lab testing or analysis to be compatible with the operating environment shall be visually inspected to verify operability as follows:

Number of Suppressors Found Inoperable During Last Inspection	Next Required Inspection Interval
0	18 months
1	Annually
2	Semiannually
3,4	Triannually
5,6,7	Bi-Monthly
≥ 8	Monthly

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

4.18.2 All hydraulic shock suppressors listed in Table 4.18-1 whose seal materials have not been demonstrated to be compatible with the operating environment shall be visually inspected for operability monthly.

4.18.3 Every 18 months at least two representative suppressors from a relatively severe environment shall be completely disassembled and examined for damage and abnormal seal degradation.

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 and 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.

Experience at operating facilities has shown that the required surveillance program should assure an acceptable level of suppressor performance provided that the seal materials are compatible with the operating environment.

Suppressors containing seal material which has not been demonstrated by operating experience, lab tests or analysis to be compatible with the operating environment should be inspected more frequently (every month) until material compatibility is confirmed or an appropraite changeout is completed.

Examination of defective suppressors at reactor facilities and material tests performed at several laboratories (Reference 1) has shown that millable gum polyurethane deteriorates rapidly under the temperature and moisture conditions present in many suppressor locations. Although molded polyurethane exhibits greater resistance to these conditions, it also may be unsuitable for application in the higher temperature environments. Data are not currently available to precisely define an upper temperature limit for the molded polyurethane. Lab tests and in-plant experience indicate that seal materials are available, primarily ethylene propylene compounds, which should give satisfactory performance under the most severe conditions expected in reactor installations.

To complement the visual external inspections, disassembly and internal examination for component damage and abnormal seal degradation should be performed. The examination of two units, each refueling cycle, selected from relatively severe environments should adequately serve this purpose. Any observed wear, breakdown or deterioration will provide a basis for additional inspections.

REFERENCE

(1) Report, H. R. Erickson, Bergen-Patterson, to K. R. Goller, NRC, October 7, 1974. Subject: Hydraulic Shock Sway Arrestors

Table 4.18-1

Safety-Related Hydraulic Shock Suppressors

Oconee 1

Location (Engineering System Number)	Sketch/Hanger Number
Main Steam Line (01A)	1-124 1-125 1-127 1-128 1-129 1-130 1-132 1-134 1-135 1-147 1-149 1-151 1-152 H 11A H 12A H 10B H 11B
Main Steam Bypass To Condenser (01A-1)	1-941 1-944 1-945
Main Steam Supply to Auxiliary Equipment (01A-3)	1-3135
Main Steam Supply to Emergency Feedwater Pump Turbine (01A-4)	1-1305 1-1310 1-1315
Main Feedwater Line (03)	H 7B H 10A
Emergency Feedwater Line (03A)	1-1289 1-1292 1-1293 1-1294 1-1295 1-1296 1-1297 1-1298 1-1299

Table 4.18-1 (Continued)

Location (Engineering System Number)	Sketch/Hanger Number
Emergency Feedwater Line (03A) (Continued)	1-5600
	1-5601
	1-5602
	1-5603
	1-5604
	1-5605
	1-5606
	H 7B
Reactor Coolant System (50)	1-4100
	1-4102
	1-4104
	1-4105
	1-4107
	1-4109
	1-4111
	1-4112
	1-4113
	1-4115
	1-4116
	1-4117
	H 1
	H 3
	H 4
	H 5
	H 7
	H 8
	H 9
	H 10
	H 11
	H 12
	H 1A
	H 2A
	H 3A
High Pressure Injection System (51)	H 17A
	H 1E
Low Pressure Injection System (53)	H 5 (2,NS-EW)
	H 40C
	H 41C
Reactor Building Spray System (54)	1-2139
	1-2149
	H 9A
	H 9B

Table 4.18-1 (Continued)

Location (Engineering System Number)	Sketch/Hanger Number
Pressurizer Relief Valve Discharge (57)	H 5 H 6 H 9 H 10 H 11 H 14 H 15 H 17 H 18 H 22 H 26 H 27

Table 4.18-1

Safety-Related Hydraulic Shock Suppressors

Oconee 2

Location (Engineering System Number)	Sketch/Hanger Number
Main Steam Line (01A)	2-127 2-128 2-129 2-130 2-134 2-135 2-147 2-149 2-151 2-152 H 2A H 8A H 2B H 8B
Main Steam Bypass to Condenser (01A-1)	2-941 2-944 2-945
Main Steam Supply to Auxiliary Equipment (01A-3)	2-3135
Main Steam Supply to Emergency Feedwater Pump Turbine (01A-4)	2-1309 2-1322 2-1323 2-1324 2-1326 2-1327 2-1329 2-1333
Main Feedwater Line (03)	H 6A & H 7A H 6B
Emergency Feedwater Line (03A)	2-1289 2-5656 2-5663 2-5685 2-5691 H 1A H 3A

Table 4.18-1 (Continued)

Location (Engineering System Number)	Sketch/Hanger Number
Emergency Feedwater Line (03A) (Cont'd)	H 5A H 7A H 1B
Reactor Coolant System (50)	2-4100 2-4105 2-4107 2-4109 2-4111 2-4112 2-4113 2-4114 2-4115 2-4117 2-4119 2-4120 H 1 H 3 H 4 H 5 H 7 H 8 H 9 H 10 H 11 H 12 H 1A H 2A H 3A
High Pressure Injection System (51)	2-4482 H 2A H 1E
Low Pressure Injection (53)	2-2086 2-2089 2-4206 H 3 H 1E
Reactor Building Spray System (54)	2-2139 2-2149 2-2172 2-2174 H 9A H 9B

Table 4.18-1 (Continued)

Location (Engineering System Number)	Sketch/Hanger Number
Spent Fuel Cooling (56)	H 9 H 10
Pressurizer Relief Valve Discharge (57)	H 7 H 9 H 15 H 16 H 17 H 20 H 21 H 23 H 25 H 26

Table 4.18-1

Safety-Related Hydraulic Shock Suppressors

Oconee 3

Location (Engineering System Number)	Sketch/Hanger Number
Main Steam Line (01A)	3-124 3-125 3-126 3-128 3-129 3-130 3-131 3-132 3-133 3-135 3-147 3-149 H 2A H 8A H 2B H 8B
Main Steam Bypass to Condenser (01A-1)	3-956 3-957 3-959 3-960
Main Steam Supply to Auxiliary Equipment (01A-3)	3-3109
Main Steam Supply to Emergency Feedwater Pump Turbine (01A-4)	3-1311 3-1312 3-1314 3-1316 3-1317 3-1318 3-1319 3-1320
Main Feedwater Line (03)	H 6A & H 7A H 6B
Emergency Feedwater Line (03A)	3-1274 3-1379 3-1280 3-5606 3-5624 3-5628 H 1A

Table 4.18-1 (Continued)

Location (Engineering System Number)	Sketch/Hanger Number
Reactor Coolant System (50)	3-4100
	3-4105
	3-4107
	3-4109
	3-4111
	3-4112
	3-4113
	3-4114
	3-4115
	3-4117
	3-4119
	3-4120
	H 1
	H 3
	H 4
	H 5
	H 7
	H 8
	H 9
	H 10
	H 11
	H 12
	H 1A
	H 2A
	H 3A
High Pressure Injection System (51)	3-2214
	H 2A
	H 1E
Low Pressure Injection System (53)	3-4271
	3-4273
	3-4280
	3-4281
	3-4282
	3-4287
	3-4288
	H 3
	H 1C
Reactor Building Spray System (54)	3-2140
	3-2165
	3-2174
	H 9A
	H 9B

Table 4.18-1 (Continued)

Location (Engineering System Number)	Sketch/Hanger Number
Spent Fuel Cooling System (56)	3-5700
	3-5703
	3-5707
	3-5709
	3-5712
	3-5716
	3-5718
	H 9
	H 10
Pressurizer Relief Valve Discharge (57)	H 7
	H 9
	H 15
	H 16
	H 17
	H 20
	H 21
	H 23
	H 25
	H 26