

Duke Power Company
Oconee Nuclear Station

Attachment 1

Proposed Technical Specification Revision

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by starting with the piston at the as found setting and extending the piston rod in the tension mode direction. All snubbers connected to an inoperable common hydraulic fluid reservoir shall be counted as inoperable snubbers. Snubber operability will be verified in accordance with the following schedule:*

<u>No. Inoperable Snubbers per Inspection Period</u>	<u>Subsequent Visual Inspection Period</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%
≥ 8	1 month \pm 25%

Note: (1) The required inspection interval shall be lengthened more than two steps per inspection.

(2) Snubbers 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 be above schedule.

(3) Hydraulic and mechanical snubber inspection schedules are independent.

4.18.2 The seal service life of hydraulic snubbers shall be monitored to ensure that the seals do not exceed their expected service life by more than 10% between surveillance inspections. The maximum expected service life for the various seals, seal materials, and applications shall be estimated based on engineering information, and the seals shall be replaced so that the maximum expected service life is not exceeded by more than 10% 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 6.5.1.m.

4.18.3 At least once per refueling outage, a representative sample, a minimum of 10% of the total of hydraulic snubbers in use in the plant, shall be functionally tested either in place or in a bench test. For each hydraulic snubber that does not meet the functional test acceptance criteria of Specification 4.18.4, an additional minimum of 10% of the hydraulic snubbers shall be functionally tested until none are found inoperative or all have been functionally tested.

The representative sample selected for functional testing shall include the various configurations, operating environments and the range of size and capacity of hydraulic snubbers. The representative sample shall be selected randomly from the total population of safety-related hydraulic snubbers.

*A one-time extension is granted for the Unit 2 inaccessible hydraulic snubbers inspection such that it be performed during the 1985 Unit 2 refueling outage, provided that such outage begins no later than March 15, 1985.

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Attachment 2

No Significant Hazards Consideration Evaluation

No Significant Hazards Consideration Evaluation

Duke Power has made the determination that this amendment request poses no significant hazards as defined by NRC regulations in 10 CFR 50.92. This ensures that operation of the facility in accordance with the proposed amendment would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (3) Involve a significant reduction in a margin of safety.

The proposed amendment grants a one month extension to the current inspection interval for the visual inspection for the inaccessible hydraulic snubbers for Unit 2. These snubbers are designed to prevent unrestrained pipe motion during and following a severe transient or seismic disturbance.

The commission has provided guidelines pertaining to the application of the three standards by listing specific examples in 48 FR 14870. Example (vi) of the types of amendments not likely to involve significant hazards considerations is applicable to the proposed amendment to extend the inspection interval one-month. Example (vi), in part, reads as follows:

"A change which either may result in some increase to the probability or consequences of a previously analyzed accident or may reduce in some way a safety margin, but where the results of the change are clearly within all acceptable criteria with respect to the system or component specified in the standard review plan."

As discussed in the Technical Justification (Attachment 3), a one month extension to the current inspection interval would result in an insignificant increase in the number of expected snubber failures. Accordingly, Duke contends that the potential impact to plant safety will not be significantly increased. The basis for this, as discussed in the Technical Justification, is that there will not be a significant increase in the possibility of finding any additional inoperable snubbers as a result of the one month extension. Therefore, Duke expects that the condition of the Unit 2 inaccessible Hydraulic Snubber population, when inspected, will be sound, or at least as good as that found during the last inspection (83 Refueling Outage Inspection). Furthermore, the probability of occurrence of an event which would challenge these snubbers during this one month extension is very small.

The following evaluation demonstrates that when measured against the standards provided in 10 CFR 50.92, this amendment request does not constitute a significant safety hazard.

First Standard

Involve a significant increase in the possibility or consequences of an accident previously evaluated.

This amendment request will not increase the probability that a severe transient or seismic disturbance will occur. The one month extension to the current inspection interval does not impact the probability that these events will occur.

The discussion provided within the Technical Justification (Attachment 3) indicates that there is an insignificant increase in probability of finding an inoperable snubber. This indicates that during the one month extension, the possibility of finding an inoperable snubber is very small. As a result, if a dynamic event were to occur which would challenge these snubbers, the consequences resulting from such an event would not be significantly increased by the proposed amendment.

Second Standard

Create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed amendment allowing for a one month extension of the inspection interval does not in any way create the possibility of a new or different kind of accident from any accident previously evaluated.

Third Standard

Involve a significant reduction in a margin of safety.

The discussion presented in the Technical Justification (Attachment 3) indicates that there is a very low probability of finding an inoperable hydraulic snubber on Unit 2 during the one month extension. Thus, the margin of safety provided by these snubbers to the systems in which they are installed will not be significantly reduced by the proposed amendment.

In summary, Duke has determined and submits that the proposed amendment does not involve a significant safety hazard.

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Attachment 3

Technical Justification

TECHNICAL JUSTIFICATION

During the visual inspection of the Unit 2 inaccessible hydraulic snubbers, performed on September 19, 1983, the fluid reservoirs for two snubbers were found empty. Both snubbers were removed to be functionally tested. However the test performed was invalid since oil was added to the reservoirs prior to testing. Duke performed a detailed technical elevation of this situation and had determined that one of the snubbers was in fact operable at the time of the inspection. A discussion of the evaluation was provided to the NRC by a Duke letter dated May 11, 1984.

The proposed Technical Specification revision involves delaying the next scheduled inspection of the Unit 2 inaccessible hydraulic snubbers until March 15, 1985. This inspection is presently scheduled for February 14, 1985, as discussed in the May 11, 1984 Duke letter.

In consideration of the one month extension, an investigation into the history of hydraulic snubber failures was conducted. The investigation encompassed the hydraulic snubbers for all three units, both inaccessible and accessible hydraulic snubbers. The results of the investigation are summarized in Table 1. The data indicate that the failure rate for hydraulic snubbers is historically very low. The investigation specifically evaluated the history of Unit 2 inaccessible hydraulic snubber failures as well (see table 1).

In reviewing past Oconee visual inspection results from 1977 to the present (see Table 1), it appears reasonable to expect only one inoperable hydraulic snubber per unit per year. This provides assurance that the snubber population quality is high. Since the failure rate has been established over a 6-7 year period of time it is a strong predictor of future snubber failures.

In 1978 and 1980, five and two snubbers were declared inoperable because of improper testing, respectively. It was determined that at least five of the seven would have been declared operable, had they been properly tested. Since this time, only one snubber in Unit 2 has been found inoperable. This gives an expected failure rate of 0.3 snubbers per year. For our current fifteen month inspection interval, we expect 0.38 failures. Extending the interval to sixteen months causes an increase of 0.02 failures, or 0.4 total failures per interval. Duke considers this increase insignificant.

Furthermore the inaccessible snubber population for Unit 2 has been undisturbed since November due to no maintenance activities. Reduced area maintenance activities means reduced chances of mechanical damage to the snubbers. This increases our confidence in the operability of the snubber population.

Duke's Hydraulic Snubber Seal Life Extension Program currently requires 100% inspection of the stations accessible hydraulic snubbers every six months. These inspections are used as a tool to help predict the condition of the inaccessible snubber seals. We have a high confidence level that the snubber seals are in good condition based on the seal life program, Technical Specification inspections, and past records. Therefore, fluid leakage due to seals should be minimal.

Based on experience and our maintenance program, Duke expects the condition of the snubber population to be at least as good as the 1983 Unit 2 Refueling Outage Inspection of those snubbers, if not better. Duke believes that a one month extension to the current inspection interval will not significantly increase the potential for finding an inoperable snubber, therefore, there will be no significant increase in the potential for affecting plant safety.

Finally, the probability of an event occurring that would challenge these snubbers during this one-month extension is very small.

TABLE 1

Oconee Nuclear Station
History of Hydraulic Snubber Failures

	1977 ⁴	1978	1979	1980	1981	1982	1983	1984 ¹
Failures Involving Hydraulic Snubbers	1	9 ²	3	4	4	0	5	1
Failures Involving Inaccessible Hydraulic Snubbers	0	6 ²	3	2	0	0	2	0 ³
U#2 Inaccessible Hydraulic Snubbers Failures	0	5 ⁵	0	2 ⁵	-	0	1	-

NOTE 1 - As of May 8, 1984

2 - Includes 5 hydraulic snubbers which passed their functional testing but were declared inoperable because fluid was added prior to testing

3 - Only Unit 3

4 - Start of Seals Extended-Life Program

5 - Fluid added prior to functional testing, therefore declared inoperable.