

NRC INSPECTION MANUAL

PART 9900: TECHNICAL GUIDANCE

STS4796.TG

STANDARD TECHNICAL SPECIFICATIONS
SECTION 4.7.9.6
OPERABILITY OF HYDRAULIC SNUBBERS WITH EMPTY RESERVOIRS

A. PURPOSE

To provide NRC position on operability of hydraulic snubbers with empty reservoirs.

B. REQUIREMENT

When the hydraulic fluid port of a snubber is uncovered, the snubber is inoperable.

C. DISCUSSION

An uncovered fluid port would indicate that air would become entrapped in the hydraulic fluid upon actuation of the snubber. Fluid compressibility changes considerably when as little as two percent air is entrapped in the hydraulic fluid. The snubber cannot maintain its operability if the hydraulic fluid volume in the reservoir is insufficient to cover the port and entry of air then occurs.

D. REFERENCE

Memorandum G. Lainas to S. E. Bryan, dtd. 7/29/80.

END

Attachment

COPY

DATE: JUL 29 1980

MEMORANDUM FOR: Samuel E. Bryan, Assistant Director for Field
Coordination, DROI, IE

FROM: G. Lainas, Assistant Director for Safety
Assessment, Division of Licensing

SUBJECT: OPERABILITY OF SNUBBERS WITH EMPTY RESERVOIRS

REFERENCES: 1. Memo from S.E. Bryan to G. Lainas on the same
subject, dated June 5, 1980.
2. Memo from R.C. Lewis to S.E. Bryan on the same
subject, dated May 22, 1980.

In response to your request stated in reference 1 for our interpretation of operability of snubbers with empty reservoirs, we have reviewed reference 2 and concur with the position taken therein that when the hydraulic fluid port of a snubber is uncovered, the snubber is inoperable. An uncovered fluid port would indicate that air would become entrapped in the hydraulic fluid upon actuation of the snubber. Since the fluid compressibility changes considerably when as little as two percent air is entrapped in the hydraulic fluid, the snubber cannot maintain its operability if the reservoir is emptied to the extent that the hydraulic port is uncovered.

For your information, a revision to the Standard Technical Specifications will be published soon that will explicitly permit the use of functional testing to verify the operability of hydraulic snubbers that appear inoperable as a result of visual inspections. The criteria for taking credit for this testing will be stipulated in the revised specification, and will be consistent with your October 1, 1978 interpretation enclosed with reference 2.

G. Lainas, Assistant Director
for Safety Assessment
Division of Licensing

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