LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.11.D.Shock Suppressors (Snubbers) on Safety Related Systems	4.11.D. Shock Suppressors (Snubbers) on Safety Related Systems
3.11.D.1 During all modes of operation all snubbers on safety-related systems shall be operable except as noted in 3.11.D.2 and 3.11.D.3 below. Snubbers on non-safety related systems are excluded from this requirement if their failure or failure of the system on which installed has no adverse effect on a safety-related system.	4.11.D.1 Snubbers required to be operable under the provisions of 3.11.D.1 shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program and the requirements of Specification 4.6.G.
3.11.D.2 During operation in the cold shutdown or refueling modes, snubbers located on systems required to be operable shall be operable except as noted in 3.11.D.3.	4.11.D.2 Snubbers required to be operable under the provisions of 3.11.D.1 shall be visually inspected according to the following schedule.
3.11.D.3 With one or more snubbers inoperable under the requirements of 3.11.D.1, within 72 hours, replace or restore the inoperable snubber to the operable status and perform an engineering evaluation per specification 4.11.D.6. If these requirements cannot be met, declare the supported system inoperable and follow the applicable Limiting Condition for Operation for that System.	The required inspection interval shall not be lengthened more than one step at a time. The provisions for extending surveillance frequency included in Section 1.0 Definitions do not apply. Snubbers may be categorized in two groups, "accessible" or "inaccessible", based on their accessibility for inspection during reactor operation. These two groups may be inspected independently according to the above schedule.

No. of Snubbers Found Inoperable During Inspection Period	Next Visual Inspection Period
0	18 mo. ± 25%
1	12 mo. ± 25%
2	6 mo. ± 25%
3,4	4 mo. ± 25%
5,6,7	2 mo. ± 25%
8 or more	1 mo. ± 25%

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LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
	4.11.D.3 Visual inspection of snubbers required to be operable under the provisions of 3.11.D.1 shall verify that 1) there are no indications of damage or impaired operability, 2) attachments are secure, and 3) there is freedom of movement if this can be verified without disconnecting the snubber. Snubbers which appear to be inoperable may be made operable for the purpose of establishing the next visual inspection interval, providing that 1) the cause of the rejection is clearly established and remedied for that particular snubber and for other generically susceptable snubbers; and 2) the affected snubber is functionally tested in the as found condition and determined operable per Specification 4.11.D.7 or 4.11.D.8, as applicable. When the fluid port of a hydraulic snubber is found to be uncovered, the snubber shall be determined to be inoperable for the purpose of establishing the next visual inspection interval. 4.11.D.4 Functional Test a) Once each operating cycle, during shutdown, a representative sample of 10% of each type of (mechanical or hydraulic) snubber required to be operable under the provisions of 3.11.D.1 shall be functionally tested either in place or in a bench test. For every unit found to be inoperable an additional 10% of that type of snubber shall be functionally tested until no more failures are found or all snubbers of that type have been tested. The functional test requirements for mechanical

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
	snubbers will not take effect until the first refueling outage commencing one year after the issuance of Amendment No. 101/103 to the Technical Specifications. b) The representative sample selected for functional testing shall include various configurations, operating environments, sizes, and capacities of snubbers. At least 25% of the sample shall include snubbers from the following categories: 1. The first snubber away from each reactor nozzle. 2. Snubbers within five feet of heavy equipment (valves, pumps, turbines, motors) 3. Snubbers connected to safety/relief valve discharge piping within 10 feet of the valve. c) If any snubber selected for functional test either fails to lock up or fails to move, the cause shall be evaluated and if the failure is caused by manufacturing or design deficiency, all snubbers of the same design subject to the same defect shall be functionally tested. This testing requirement is independent of the requirements above for snubbers not meeting the functional test acceptance criteria. d) Snubbers which are especially difficult to remove or are in high radiation areas during shutdown (dose greater than 100 mrem/hour) shall be included in the representative sample except for those snubbers specifically exempted by the NRC. 4.11.D.5 In addition to the regular sample, snubbers required to be operable under the provisions

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
	of 3.11.D.1 which failed the previous functional test shall be retested during the next testing cycle. If such a failed snubber was replaced, both the replacement snubber and the repaired snubber (if it had been repaired and installed in another position) shall be retested. The test results of these snubbers may not be included for the resampling of 4.11.D.4.a.
	4.11.D.6
	For snubbers required to be operable under the provisions of 3.11.D.1 found inoperable, an engineering evaluation shall be performed to determine a) mode of failure, and b) if there is any adverse effect on the supported piping or components due to the snubber inoperability.
	4.11.D.7 Hydraulic Snubbers
	Functional Test Criteria: Functional test shall verify that:
	a) Restraining action is achieved within specified range of velocity or acceleration in both compression and tension.
	b) Snubber bleed rate is within the specified range in both tension and compression. Snubbers specifically required not to displace under continuous load shall have this capability verified.
	4.11.D.8
	Mechanical Snubber Functional Test Criteria: Functional tests shall verify that: a) The force that initiates free movement of the snubber rod in either tension or compression is less than the specified maximum drag force. Drag force shall not have

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
	increased more than 50% since the last functional test. b) Restraining Action is achieved within the specified range of velocity or acceleration in both tension and compression. c) Snubber release rate, where required, is within the specified range in compression or tension. Snubbers specifically required not to displace under continuous load shall have this capability verified. 4.11.D.9 Service Life Monitoring A record of the service life of each snubber required to be operable under the provisions of 3.11.D.1, the date of commencement of service life, (January 1, 1978, unless otherwise specified) and the installation and maintenance records upon which the service life is based shall be maintained. Once each operating cycle, these records shall be reviewed to verify that no snubber service life shall be exceeded prior to the next review. If the service life will be exceeded then either recondition or replace the snubbers or re-evaluate the service life.

3.11 BASES

Alternate Heat Sink

The alternate heat sink is provided as an alternate source of cooling water to the plants in the unlikely event of loss of the normal heat sink (Conowingo Pond) or the maximum credible flood. For the condition of loss of the normal heat sink, the contained volume of water (approximately 3.7 million gallons, which corresponds to a gauge reading of 17') provides a minimum of seven days cooling water to both plants for decay heat removal. The operability requirements for the alternate heat sink are specified in Specification 3.9.

C. Emergency Shutdown Control Panels

The Emergency Shutdown Control Panels are provided to assure the capability of taking the plants to the hot shutdown condition external to the control room for the unlikely condition that the control room becomes uninhabitable.

D. Shock Suppressors (Snubbers) on Safety Related Systems

Snubbers are provided to ensure that the structural integrity of the reactor coolant system and all other safety-related systems are maintained during and following a seismic or other event initiating dynamic loads.
Snubbers 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 snubber is an increase in the probability of structural damage to piping as a result of seismic or other event initiating dynamic loads. It is therefore required that all snubbers necessary to protect the primary coolant system or any other safety system or components be operable during reactor operation.

Because the snubber protection is required only during low probability events a period of 72 hours is allowed for repairs or replacements. A determined effort will be made to repair the snubber as soon as possible. This allowable repair period is consistent with the allowable repair items of other safety related components such as RHR pumps, HPCI subsystems, ADS valves and diesel generators.

An engineering analysis must be performed on supported components when a snubber is determined to be inoperable. The purpose of this analysis is to assure that the supported components have not been damaged as a result of the snubber inoperability.

Ten percent of each type (hydraulic or mechanical) of snubber on each unit shall constitute an adequate sample.

High radiation areas (as defined in CFR 10 Part 20.202) means any area, accessible to personnel, in which there exists radiation at such levels that a major portion of the body could receive, in any one hour, a dose in excess of 100 millirem. Snubbers considered especially difficult to remove are those which because of size, weight, or geometry of installation require the use of unusual rigging equipment or arrangements for their removal, or require more than three hours of effort in their removal.

The service life of a snubber is monitored to assure that consideration is taken for the age of the expendable components. The service life is based upon manufacturer's recommendation, service conditions, maintenance history, operating experience and test and inspection results. When the review of service life records reveals that a snubber is nearing the end of its design service life, efforts are made to include that snubber in the next functional test cycle or the service life is reevaluated. The purpose of the reevaluation is to extend the service life based upon experience and information gained during operations. The results of functional testing and inspection may be used to alter the service lives of all snubbers of similar design operating under similar conditions.