

JERSEY CENTRAL POWER & LIGHT COMPANY
OYSTER CREEK NUCLEAR GENERATING STATION

DRYWELL SNUBBER ACTIVITIES
JANUARY 1974

Granddaughter

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PDR ADDCK 05000219
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On January 12, 1974, after achieving the 40-hour stay time access requirement, an inspection of the hydraulic shock and sway arrestors in the drywell was initiated. All units, which included 65 Bergen-Paterson and 25 Grinnell snubbers, were inspected thoroughly and those units unable to meet the rod freedom, fluid level or no visible leakage requirements were tagged for removal. Replacements were made with snubbers rebuilt with the complete ethylene propylene seal kits. Alemite fittings with EP inserts were used on all the rebuilt units which insures that all sealing material is of the recommended type.

The inspection of the Bergen-Paterson snubbers located five failed units and one leaking unit which, though still operable, had a low oil level. These snubbers were tagged for removal as "failed" to segregate them from other units to be removed. Five leaking snubbers with sufficient fluid levels were also tagged for removal. Of the units tagged "failed," a visual inspection of the seals revealed that some of the seals did deteriorate to a point of failure while others looked in excellent condition. There seemed to be several types of material used in each unit, and to determine which material failed and the degree of the deterioration of the remaining seals, an analysis using infared scans and microscopic examination is being conducted by the GPU Laboratory. A supplementary report of the test results will be generated upon their receipt.

During the inspection of the seals, it was determined that two of the failed units had no rebuilding documentation available. Further investigation revealed a total of nine undocumented snubbers from the September rebuilding activities. To insure an accurate record of the material used in the drywell, these nine snubbers were also replaced with rebuilt units.

A review of the information obtained from the inspection showed that four of the failed units were located above the biological shield. There were also two undocumented units at that elevation and it was decided at that time to replace all the hydraulic snubbers in that area as a preventive measure to insure units containing all ethylene propylene seal material in the area of the drywell having the worst environmental conditions.

In addition to the above requirements for removal, twelve old series snubbers had been designated for replacement prior to the inspection. These units were of the type which could not be fully rebuilt with the full EP kits. These snubbers were tagged regardless of their condition; however, their condition was recorded on the as found sheets.

A total of 30 Bergen-Paterson hydraulic shock and sway arrestors have been replaced in the drywell during the shutdown. Of the 30 units, some fell into more than one category. Table I of this report lists all the snubbers that were replaced and the reason(s) for removal. Table II lists the installed units and corresponds with Table I.

Inspection of the Grinnell snubbers, located on the recirculation pumps, yielded two units which had very little oil in their accumulator and seven with reservoirs less than one-third filled. The remaining sixteen were in satisfactory condition. The nine units with low fluid levels had their accumulators refilled and one of the two relatively empty units had the coupling between the accumulator and piston housing tightened. The as found and as left conditions are listed at the end of the report.

TABLE I

SNUBBERS REPLACED DURING JANUARY 1974 OUTAGE

487574	North Main Steam	23'	No documentation
487557	North Main Steam	51'	No documentation
487395	North Main Steam	51'	No documentation
487538	North Main Steam	60'	Leaking S-Tube
487499	North Feedwater	23'	No documentation
487491	North Feedwater	51'	No documentation
487561	South Main Steam	23'	No documentation
469862	South Main Steam	60'	Old series snubber
487573	South Feedwater	23'	Failed (leaking)
			No documentation
477177	South Feedwater	51'	Old series snubber
487517	North Emergency Cond. Condensate Return	75'	Failed
470924	North Emergency Cond. Condensate Return	95'	Failed
			Old series snubber
487492	North Emergency Cond. Condensate Return	95'	Preventive Action
487510	North Emergency Cond. Steam Line	95'	Preventive Action
487487	North Emergency Cond. Condensate Return	95'	Failed
487447	South Emergency Cond. Condensate Return	95'	Leaking
487502	South Emergency Cond. Condensate Return	95'	No documentation
			Preventive Action
487494	South Emergency Cond. Steam Line	95'	Preventive Action
469962	South Emergency Cond. Steam Line	95'	Failed
			Old series snubber
487549	North Core Spray	75'	Leaking
487552	South Core Spray	95'	No documentation
			Preventive Action
487356	South Core Spray	95'	Preventive Action
477376	South Core Spray	95'	Failed
			Old series snubber
			Preventive Action
469860	South Electromatic Relief	51'	Old series snubber
477288	Cleanup System	55'	Old series snubber
469852	Cleanup System	65'	Old series snubber
469902	Shutdown Cooling	48'	Old series snubber
469900	Shutdown Cooling	48'	Old series snubber
469901	Shutdown Cooling	51'	Old series snubber
469939	Containment Spray	65'	Old series snubber

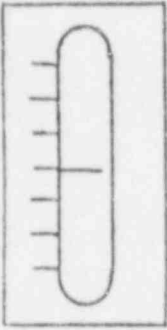
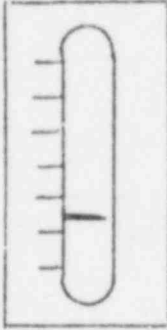
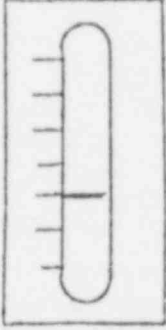
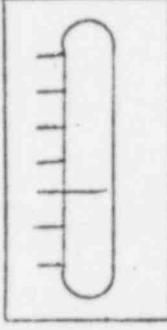
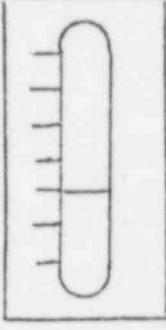
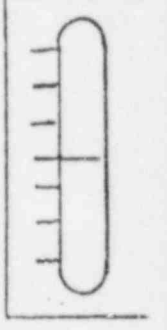
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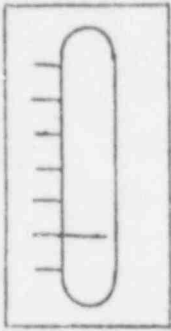
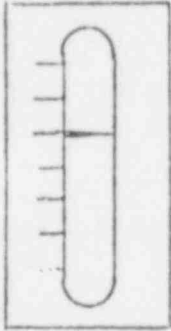
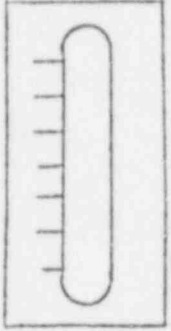
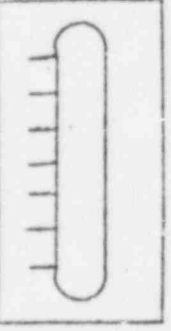
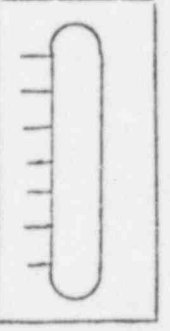
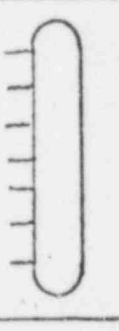
SNUBBERS INSTALLED DURING JANUARY 1974 OUTAGE

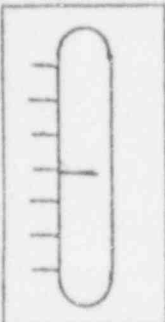
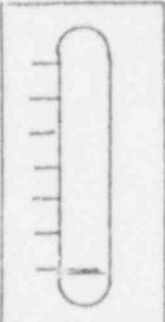
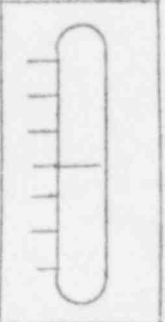
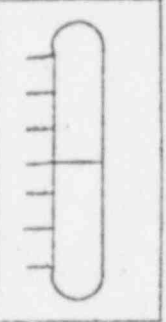
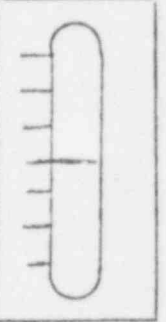
487521	North Main Steam	23'
F93501 #5	North Main Steam	51'
F93501 #4	North Main Steam	51'
487487	North Main Steam	60'
487576	North Feedwater	23'
487517	North Feedwater	51'
F84806-3	South Main Steam	23'
F93501 #2	South Main Steam	60'
487399	South Feedwater	23'
487549	South Feedwater	51'
F93502 #2	N. Condensate Ret.	75'
487561	N. Condensate Ret.	95'
487531	N. Condensate Ret.	95'
F93501 #3	N. Condensate Ret.	95'
487499	N. Emergency Cond. Steam Line	95'
487574	S. Condensate Ret.	95'
487502	S. Condensate Ret.	95'
487494	S. Emergency Cond. Steam Line	95'
F93222-2	S. Emergency Cond. Steam Line	95'
4874--	North Core Spray	75'
487552	South Core Spray	90'
487557	South Core Spray	95'
F93502 #1	South Core Spray	95'
487446	S. Electromatic Relief	51'
487495	Cleanup System	55'
487516	Cleanup System	65'
487404	Shutdown Cooling	48'
487528	Shutdown Cooling	48'
487573	Shutdown Cooling	51'
F93501 #1	Containment Spray	65'

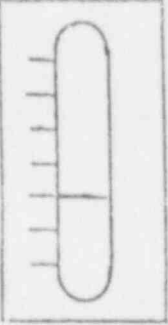
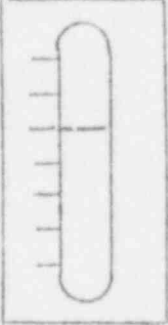
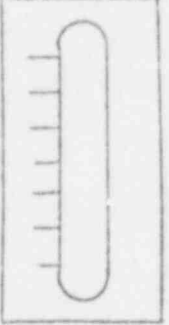
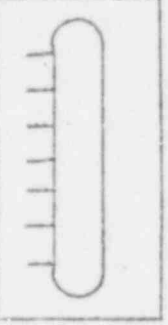
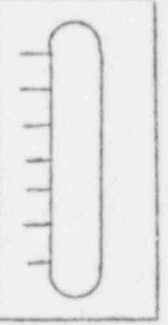
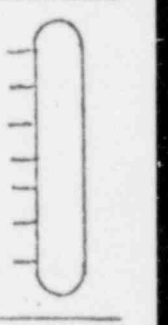
DRYWELL SNUBBERS

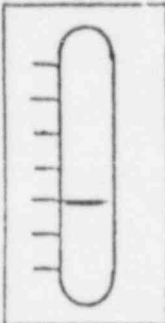
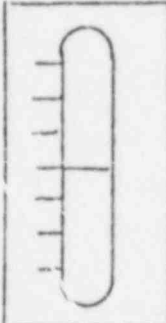
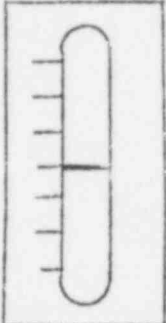
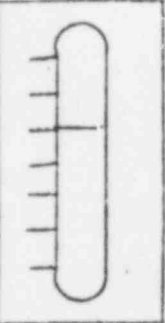
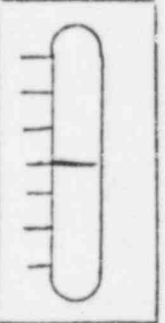
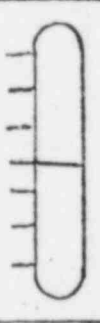
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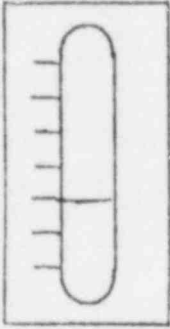
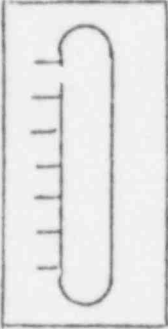
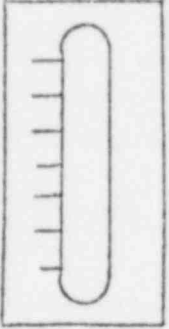
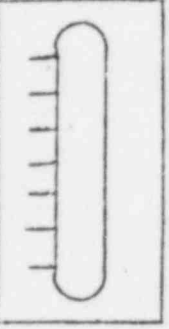
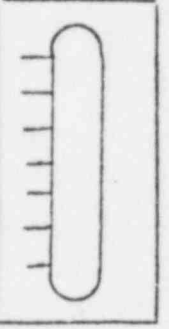
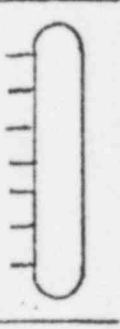
Snubber Serial Number	Position	Insp Date	System	Seal Material	Rod Condition Rod Extension	Indicator	Remarks
487513	N-2-1 23'		North Feedwater		OK 3-7/8"		
487499	N-2-2 23'		North Feedwater		OK 4-5/8"		Replace No documentat
487535	N-2-3 51'		North Feedwater		OK 3-3/4"		
487563	N-2-4 51'		North Feedwater		OK 3-7/8"		
487520	N-2-5 51'		North Feedwater		OK 3-7/8"		
487569	N-2-6 51'		North Feedwater		OK 3-3/4"		

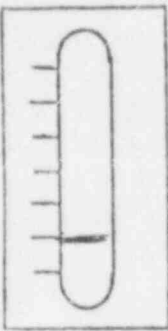
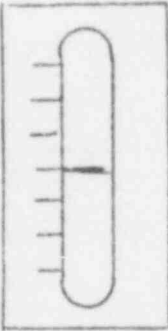
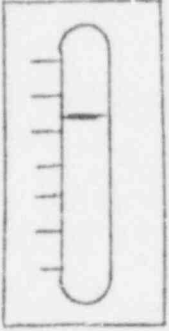
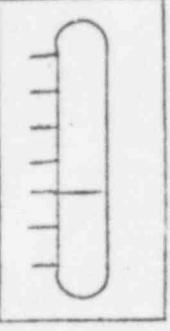
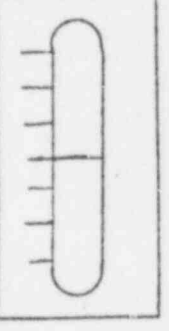
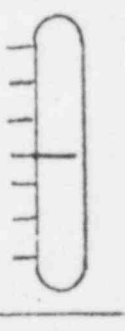
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487564	N-2-8 51'		North Feedwater		OK 3-3/4"		
							
							
							
							

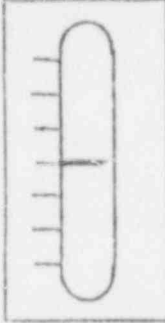
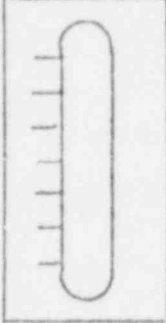
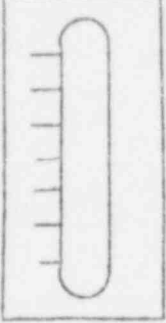
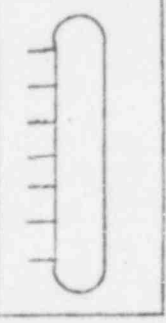
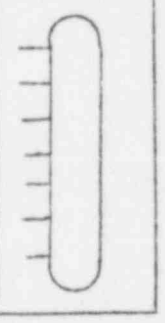
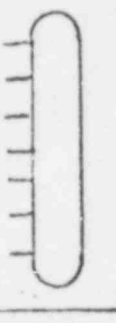
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487568	S-2-1 23'		South Feedwater		OK 3-3/4"		
487573	S-2-2 23'		South Feedwater		OK 3-7/8"		Replace Leaking-Faile and No documentat
487488	S-2-3 51'		South Feedwater		OK 3-5/8"		
487519	S-2-4 51'		South Feedwater		OK 3-3/4"		
477177	S-2-5 51'		South Feedwater		OK 3-3/4"		Replace Old series
487518	S-2-6 51'		South Feedwater		OK 4"		

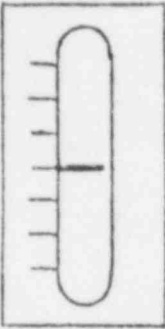
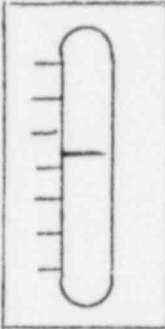
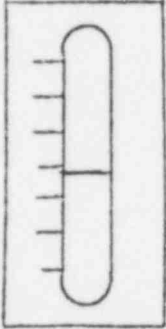
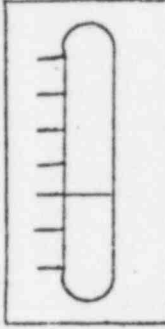
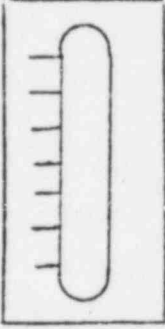
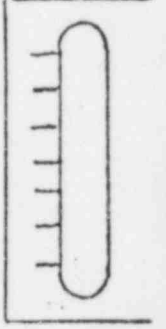
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487511	S-2-8 51'		South Feedwater		OK 2"		
							
							
							
							

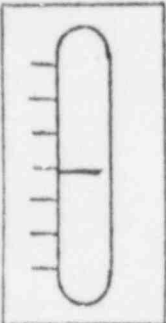
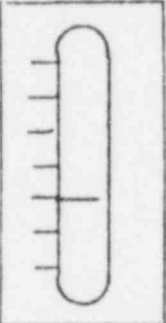
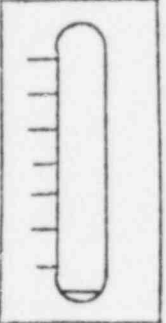
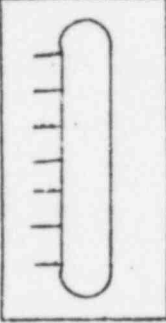
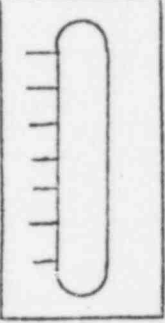
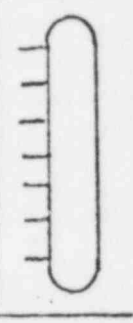
Snubber Serial Number	Position	Insp Date	System	Seal Material	Rod Condition Rod Extension	Indicator	Remarks
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487532	N-1-2 23'		North Main Steam		scratched 3-1/3"		
487566	N-1-3 51'		North Main Steam		OK 3-5/8"		
487557	N-1-4 51'		North Main Steam		OK 3-1/2"		Replace No documentati
487395	N-1-5 51'		North Main Steam		OK 4"		Replace No documentat
487527	N-1-6 51'		North Main Steam		OK 3-1/2"		

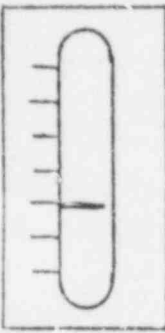
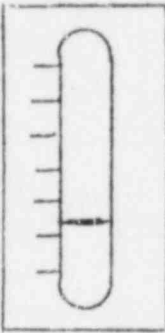
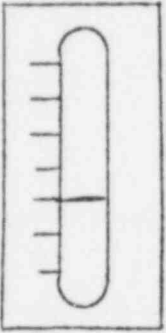
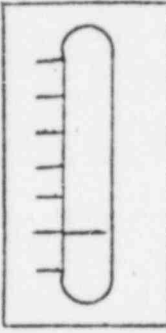
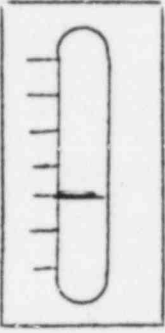
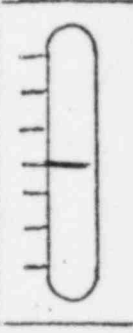
Snubber Serial Number	Position	Insp Date	System	Seal Material	Rod Condition Rod Extension	Indicator	Remarks
487538	N-1-7 50'		North Main Steam		OK 4"		Replace S-Tube Leakin
							
							
							
							
							

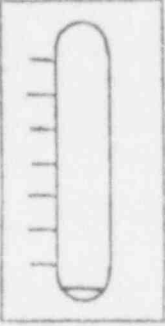
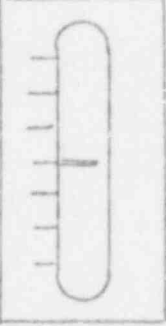
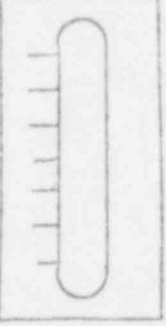
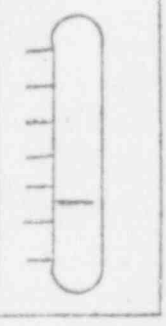
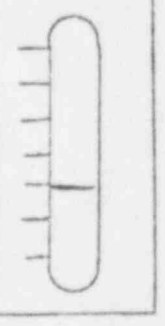
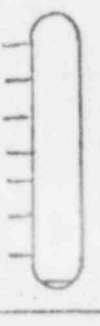
Snubber Serial Number	Position	Insp Date	System	Seal Material	Rod Condition Rod Extension	Indicator	Remarks
487530	S-1-1 23'		South Main Steam		OK 3-7/8"		
487561	S-2-1 23'		South Main Steam		OK 3-3/8"		Replace No documentation
487501	S-1-3 51'		South Main Steam		Scratched 3-5/8"		
487512	S-1-4 51'		South Main Steam		OK 3-3/8"		
487529	S-1-5 51'		South Main Steam		OK 3-3/8"		
487504	S-1-6 51'		South Main Steam		OK 3-7/8"		

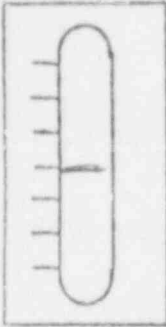
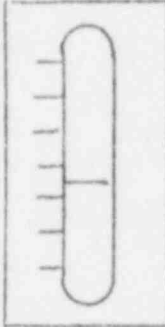
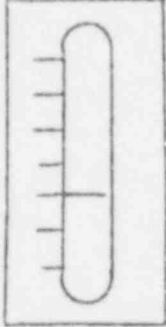
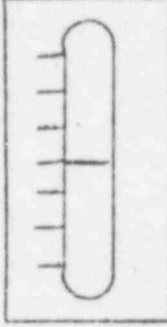
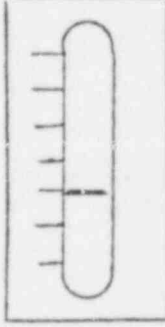
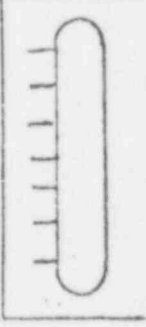
Snubber Serial Number	Position /	Insp Date	System	Seal Material	Rod Condition Rod Extension	Indicator	Remarks
469862	S-1-7 60'		South Main Steam		OK 3-1/2"		Replace Old series
							
							
							
							
							

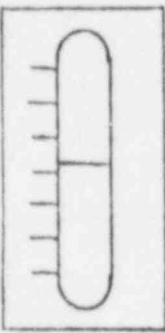
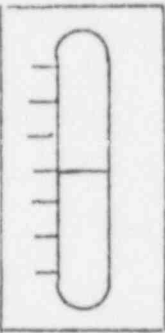
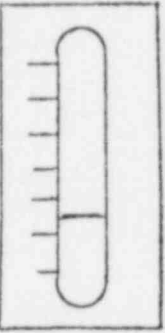
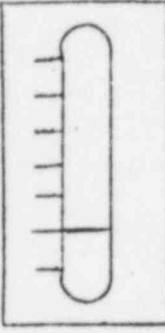
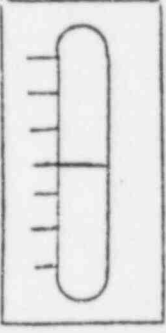
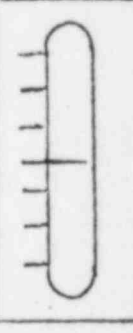
Snubber Serial Number	Position /	Insp Date	System	Seal Material	Rod Condition / Rod Extension	Indicator	Remarks
487546	N-20-1 51'		North Core Spray		OK 1-1/2"		
487523	N-20-2 51'		North Core Spray		OK 3"		
487537	N-20-3 75'		North Core Spray		OK 4-3/4"		
487521	N-20-4 75'		North Core Spray		OK 4-7/8"		Replace Slight Leak
							
							

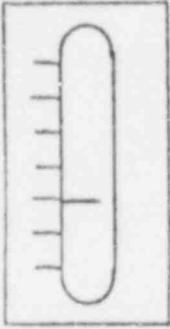
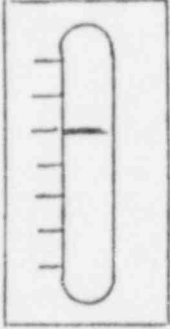
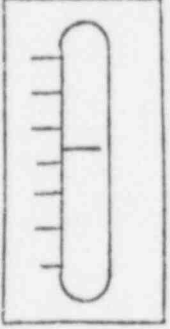
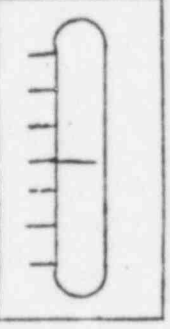
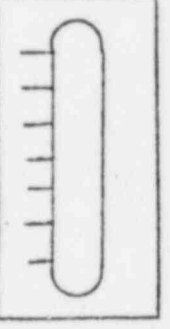
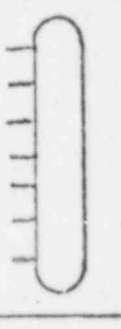
Snubber Serial Number	Position /	Insp Date	System	Seal Material	Rod Condition / Rod Extension	Indicator	Remarks
487552	S-20-1 90'		South Core Spray		OK 2-7/8"		Replace No documentati
487556	S-20-2 95'		South Core Spray		OK 4-1/4"		Replace Preventive Action
477376	S-20-3 95'		South Core Spray		OK 3-3/8"		Replace Failed Old series
							
							
							

Snubber Serial Number	Position /	Insp Date	System	Seal Material	Rod Condition Rod Extension	Indicator	Remarks
487526	N-E-1 51'		N. Electromatic Relief		OK 4"		
487529	N-E-2 51'		N. Electromatic Relief		OK 4"		
469860	S-E-1 51'		S. Electromatic Relief		OK 3-5/8"		Replace Old series
487506	S-E-2 51'		S. Electromatic Relief		OK 3-3/4"		
487536	S-E-3 51'		S. Electromatic Relief		OK 3-3/4"		
469939	21-1 65'		Containment Spray		OK 2-1/2"		Replace Old series

Snubber Serial Number	Position /	Insp Date	System	Seal Material	Rod Condition Extension	Indicator	Remarks
487517	N-14-1 75'		Emergency Condenser Condensate Return		OK 4-1/2"		Replace Failed
48751	75'		Emergency Condenser Condensate Return		OK 3-1/2"		
470924	N-14-3 95'		Emergency Condenser Condensate Return		OK 4-3/8"		Replace Failed - Old Series
487492	N-14-4 95'		Emergency Condenser Condensate Return		OK 3-3/8"		Replace Preventive Action
487510	N-14-5 95'		Emergency Condenser Steam Line		OK 3-7/8"		Replace Preventive Action
487487	N-14-6 95'		Emergency Condenser Condensate Return		OK 4"		Replace Failed

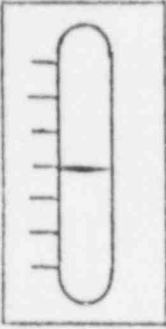
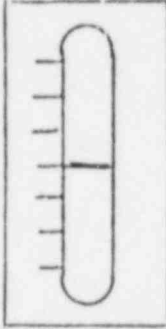
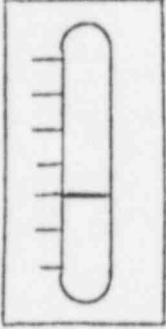
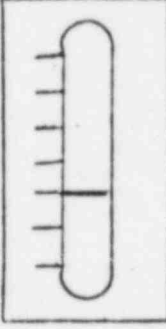
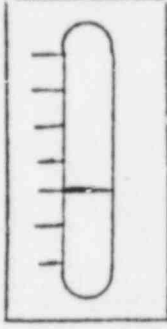
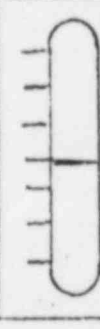
Snubber Serial Number	Position /	Insp Date	System	Seal Material	Rod Condition Rod Extension	Indicator	Remarks
487525	S-14-1 60'		Emergency Condenser Condensate Return		OK 3"		
487507	S-14-2 60'		Emergency Condenser Condensate Return		OK 4"		
487447	S-14-3 95'		Emergency Condenser Condensate		OK 4-1/4"		Replace Leaking
487502	S-14-4 95'		Emergency Condenser Condensate Return		OK1 3-5/8"		Replace No documentat
487494	S-14-5 95'		Emergency Condenser Steam Line		OK 3-1/2"		Replace Preventive Action
469962	S-14-6 95'		Emergency Condenser Steam Line		OK 3-7/8"		Replace Failed - Old Series

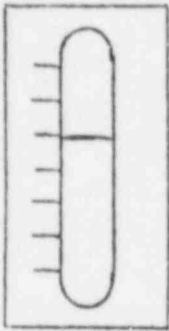
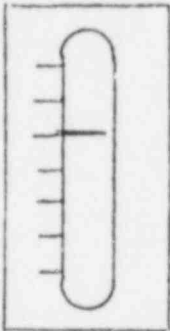
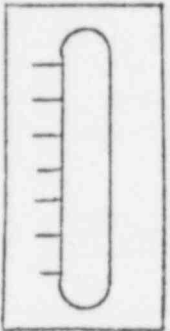
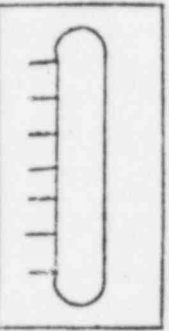
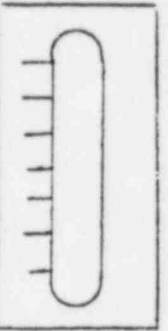
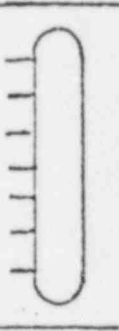
Snubber Serial Number	Position /	Insp Date	System	Seal Material	Rod Condition Rod Extension	Indicator	Remarks
469902	17-1 48'		Shutdown Cooling		OK 3"		Replace Old series
469903	17-2 48'		Shutdown Cooling		OK 2-1/2"		Replace Old series
487554	17-3 51'		Shutdown Cooling		OK 5"		
487496	17-4 51'		Shutdown Cooling		OK 4-1/2"		
487497	17-5 51'		Shutdown Cooling		OK 3-3/4"		
469901	17-6 51'		Shutdown Cooling		OK 3"		Replace Old series

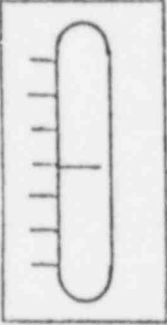
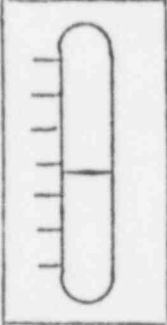
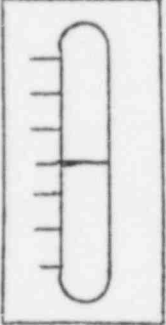
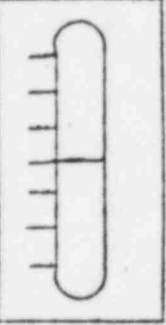
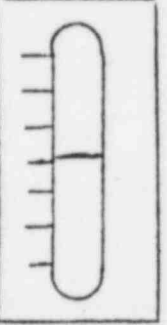
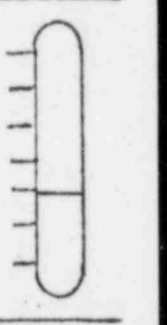
Snubber Serial Number	Position f	Insp Date	System	Seal Material	Rod Condition Rod Extension	Indicator	Remarks
487542	16-1 60'		Cleanup		OK 3"		
487538	16-2 51'		Cleanup		OK 2-7/8"		
477288	16-3 55'		Cleanup		scratched 3"		Replace Old series Slight leak
469852	16-4 65'		Cleanup		OK 3-1/2"		Replace Old series
							
							

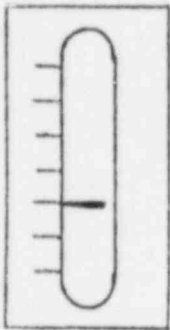
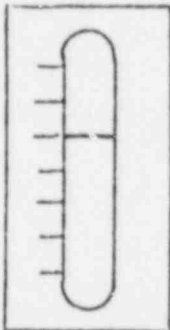
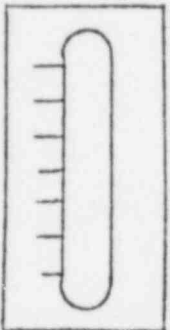
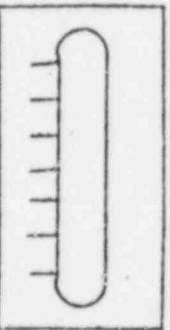
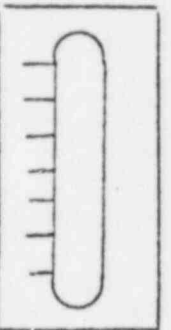
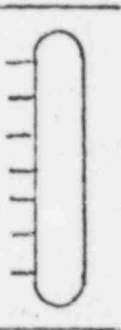
DRYWELL SNUBBERS

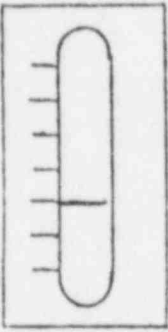
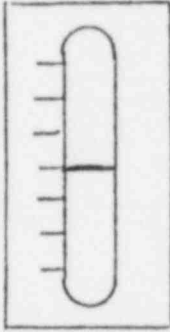
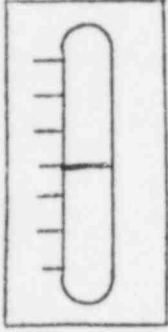
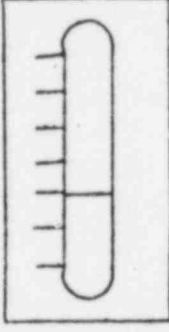
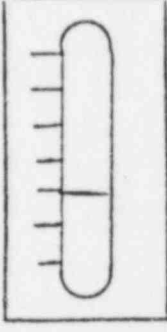
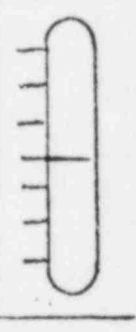
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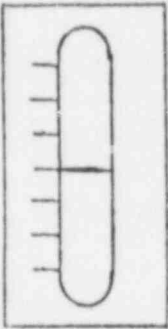
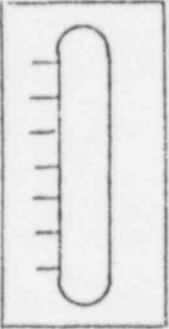
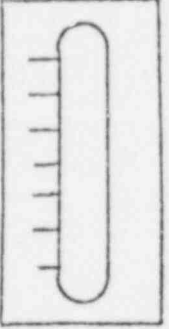
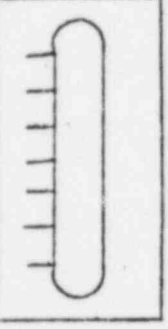
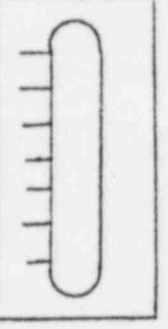
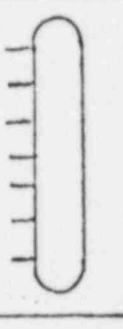
Snubber Serial Number	Position /	Insp Date	System	Seal Material	Rod Condition / Rod Extension	Indicator	Remarks
487513	N-2-1 23'		North Feedwater		OK 3-7/8"		
487576	N-2-2 23'		North Feedwater	EP	OK 3"		
487535	N-2-3 51'		North Feedwater		OK 3-3/4"		
487563	N-2-4 51'		North Feedwater		OK 3-7/8"		
487528	N-2-5 51'		North Feedwater		OK 3-7/8"		
487569	N-2-6 51'		North Feedwater		OK 3-3/4"		

Snubber Serial Number	Position /	Insp Date	System	Seal Material	Rod Condition Rod Extension	Indicator	Remarks
487517	N-2-7 51'		North Feedwater	EP	OK 2-3/8"		
487564	N-2-8 51'		North Feedwater		OK 3-3/4"		
							
							
							
							

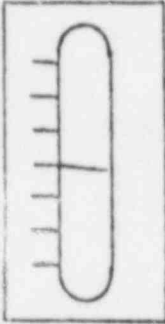
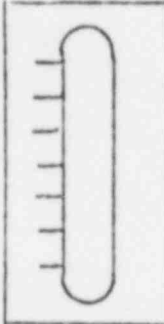
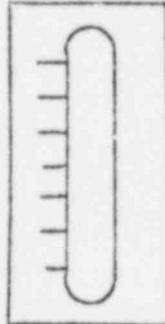
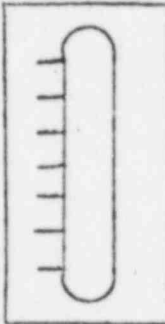
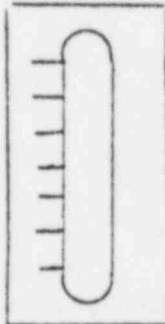
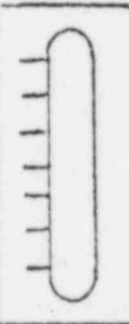
Snubber Serial Number	Position /	Insp Date	System	Seal Material	Rod Condition / Rod Extension	Indicator	Remarks
487568	S-2-1 23'		South Feedwater		OK 3-3/4"		
487399	S-2-2 23'		South Feedwater	EP	OK 4-1/2"		
487488	S-2-3 51'		South Feedwater		OK 3-5/8"		
487519	S-2-4 51'		South Feedwater		OK 3-3/4"		
487549	S-2-5 51'		South Feedwater	EP	OK 4"		
487518	S-2-6 51'		South Feedwater		OK 4"		

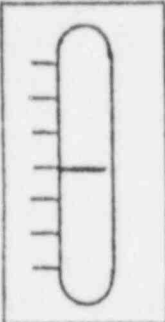
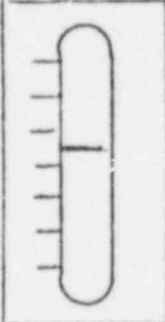
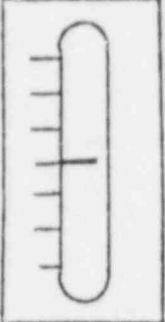
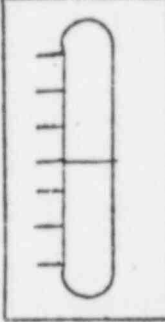
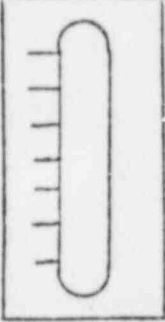
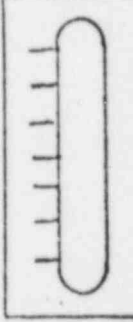
Snubber Serial Number	Position '	Insp Date	System	Seal Material	Rod Condition Rod Extension	Indicator	Remarks
487509	S-2-7 51'		South Feedwater		OK 3-1/2"		
487571	S-2-8 51'		South Feedwater		OK 2"		
							
							
							
							

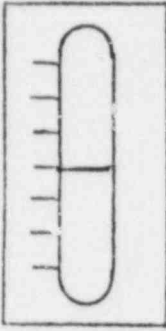
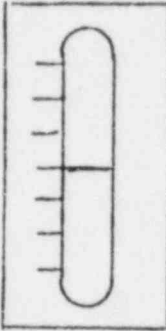
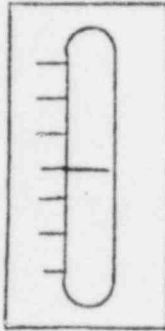
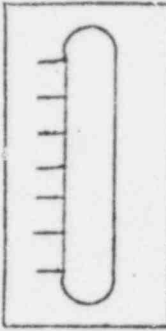
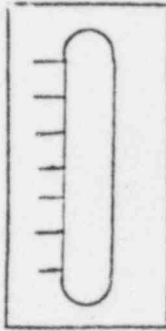
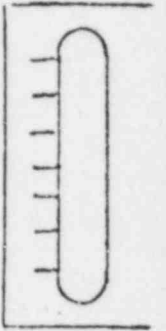
Snubber Serial Number	Position /	Insp Date	System	Seal Material	Rod Condition / Rod Extension	Indicator	Remarks
487521	N-1-1 23'		North Main Steam	EP	OK 4-1/2"		
487532	N-1-2 23'		North Main Steam		scratched 3-1/8"		
487556	N-1-3 51'		North Main Steam		OK 3-5/8"		
F93501 #5	N-1-4 51'		North Main Steam	EP	OK 3-3/4"		
F93501 #4	N-1-5 51'		North Main Steam	EP	OK 4-1/2"		
487527	N-1-6 51'		North Main Steam	EP	OK 3-1/2"		

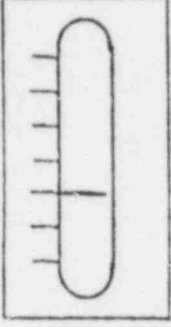
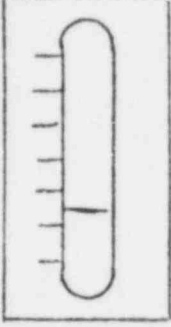
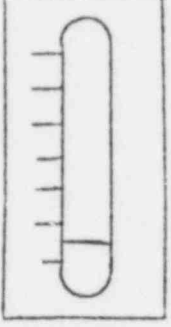
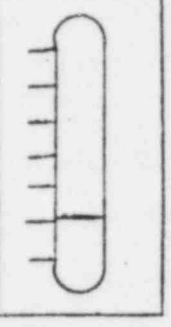
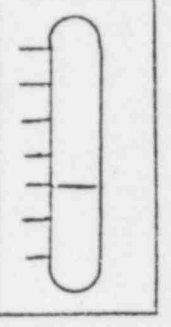
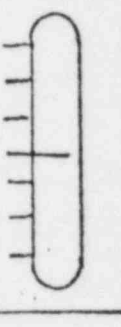
Snubber Serial Number	Position	Insp Date	System	Seal Material	Rod Condition Rod Extension	Indicator	Remarks
487487	N-1-7 60'		North Main Steam	EP	OK 3-5/8"		
							
							
							
							
							

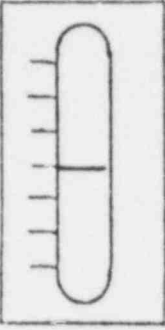
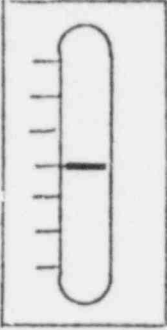
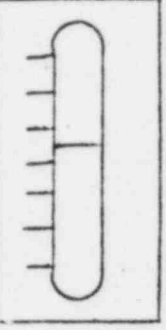
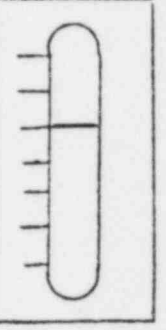
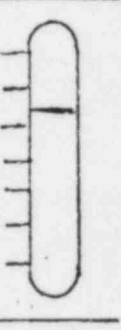
Snubber Serial Number	Position /	Insp Date	System	Seal Material	Rod Condition Rod Extension	Indicator	Remarks
487530	S-1-1 23'		South Main Steam		OK 3-7/8"		
F8-6-3	S-1-2 23'		South Main Steam	EP	OK 3-3/8"		
487501	S-1-3 51'		South Main Steam		scratched 3-5/8"		
487512	S-1-4 51'		South Main Steam		OK 3-3/8"		
487529	S-1-5 51'		South Main Steam		OK 3-3/8"		
487504	S-1-6 51'		South Main Steam		OK 3-7/8"		

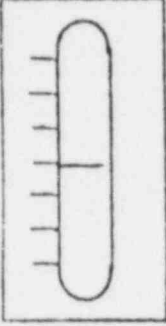
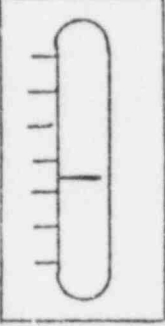
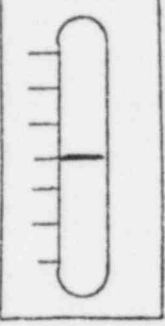
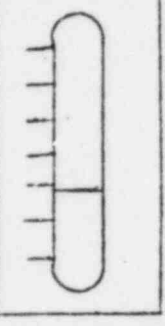
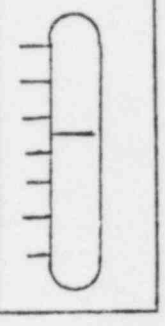
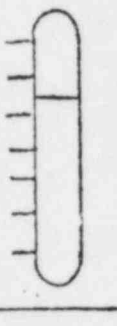
Snubber Serial Number	Position /	Insp Date	System	Seal Material	Rod Condition Rod Extension	Indicator	Remarks
F93501 #2	S-1-7 60'		South Main Steam	EP	Ok 5-1/2"		
							
							
							
							
							

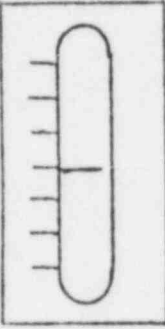
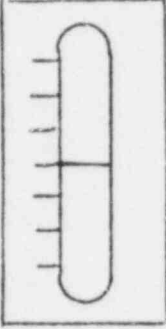
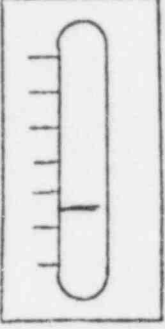
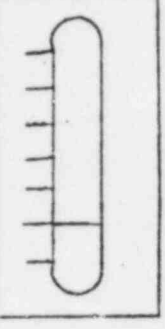
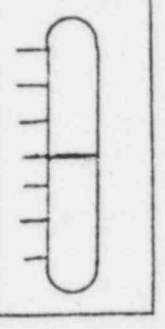
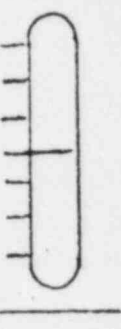
Snubber Serial Number	Position /	Insp Date	System	Seal Material	Rod Condition Rod Extension	Indicator	Remarks
487546	N-20-1 51'		North Core Spray		OK 1-1/2"		
487533	N-20-2 51'		North Core Spray		OK 3"		
487537	N-20-3 75'		North Core Spray		OK 4-3/4"		
4874--	N-20-4 75'		North Core Spray	EP	OK 3"		
							
							

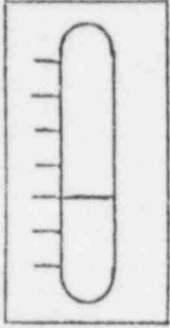
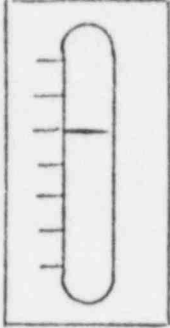
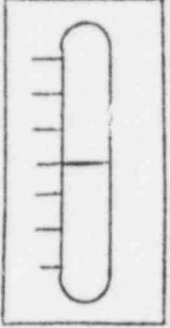
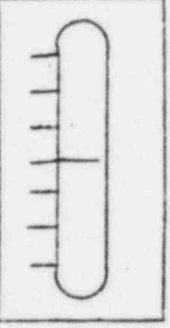
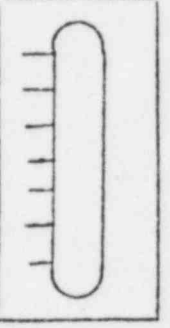
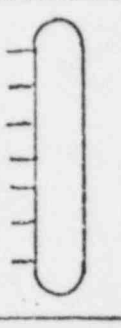
Snubber Serial Number	Position /	Insp Date	System	Seal Material	Rod Condition Rod Extension	Indicator	Remarks
487552	S-20-1 90'		South Core Spray	EP	OK 3-1/2"		
487557	S-20-2 95'		South Core Spray	EP	OK 4"		
F93502 #1	S-20-3 95'		South Core Spray	EP	OK 3-1/2"		
							
							
							

Snubber Serial Number	Position /	Insp Date	System	Seal Material	Rod Condition Rod Extension	Indicator	Remarks
487526	N-E-1 51'		N. Electromatic Relief		OK 4"		
487589	N-E-2 51'		N. Electromatic Relief		OK 4"		
487446	S-E-1 51'		S. Electromatic Relief	EP	OK 5"		
487506	S-E-2 51'		S. Electromatic Relief		OK 3-3/4"		
487536	S-E-3 51'		S. Electromatic Relief		OK 3-3/4"		
F93501 #1	21-1'		Containment Spray	EP	OK 2-1/2"		

Snubber Serial Number	Position /	Insp Date	System	Seal Material	Rod Condition Rod Extension	Indicator	Remarks
F93502 #2	N-14-1 75'		Emergency Condenser Condensate Return	EP	OK 4-1/2"		
487551	N-14-2 75'		Emergency Condenser Condensate Return		OK 3-1/2"		
F93501 #3	N-14-3 95'		Emergency Condenser Condensate Return	EP	OK 4"		
487561	N-14-4 95'		Emergency Condenser Condensate Return	EP	OK 3-1/2"		
487499	N-14-5 95'		Emergency Condenser Steam Line	EP	OK 4"		
487531	N-14-6 95'		Emergency Condenser Condensate Return	EP	OK 3-1/2"		

Snubber Serial Number	Position /	Insp Date	System	Seal Material	Rod Condition Rod Extension	Indicator	Remarks
487525	S-14-1 60'		Emergency Condenser Condensate Return		OK 3"		
487507	S-14-2 60'		Emergency Condenser Condensate Return		OK 4"		
487574	S-14-3 95'		Emergency Condenser Condensate Return	EP	OK 4-1/2"		
487502	S-14-4 95'		Emergency Condenser Condensate Return	EP	OK 4"		
487494	S-14-5 95'		Emergency Condenser Steam Line	EP	OK 3-3/4"		
F95222-2	S-14-6 95'		Emergency Condenser Steam Line	EP	OK 3-1/2"		

Snubber Serial Number	Position /	Insp Date	System	Seal Material	Rod Condition / Rod Extension	Indicator	Remarks
487404	17-1 48'		Shutdown Cooling	EP	OK 3-5/8"		
487408	17-2 48'		Shutdown Cooling	EP	OK 2-3/4"		
487554	17-3 51'		Shutdown Cooling		OK 5"		
487496	17-4 51'		Shutdown Cooling		OK 4-1/2"		
487497	17-5 51'		Shutdown Cooling		OK 3-3/4"		
487573	17-6 51'		Shutdown Cooling	EP	OK 3"		

Snubber Serial Number	Position /	Insp Date	System	Seal Material	Rod Condition Rod Extension	Indicator	Remarks
487542	16-1 60'		Cleanup		OK 3"		
487543	16-2 51'		Cleanup		OK 2-7/8"		
487495	16-3 55'		Cleanup	EP	OK 3"		
487516	16-4 65'		Cleanup		OK 3"		
							
							

GRINNEL SNUBBERS - CONDITION AS FOUND

A - Recirculation Pump

A - 1/4
B - 1
C - 1/8
D - 1/3
E - 1

B - Recirculation Pump

A - 3/4
B - 1/2
C - 0 oil on floor
D - 1
E - 1/8

C - Recirculation Pump

A - 1
B - 1/4
C - 0 oil on floor
D - 3/4
E - 1/4

D - Recirculation Pump

A - 1/2
B - 1/4
C - 1
D - 1
E - 3/4

E - Recirculation Pump

A - 1/2
B - 1
C - 1
D - 1
E - 1

0 = Empty Accumulator
1 = Full Accumulator

GRINNEL SNUBBERS - CONDITIONS LEFT

A - Recirculation Pump

A - 1
B - 1
C - 1
D - 1
E - 1

B - Recirculation Pump

A - 3/4
B - 1/2
C - 1 (tightened acc coupling)
D - 1
E - 1

C - Recirculation Pump

A - 1
B - 1
C - 1
D - 3/4
E - 1

D - Recirculation Pump

A - 1/2
B - 1
C - 1
D - 1
E - 3/4

E - Recirculation Pump

A - 1/2
B - 1
C - 1
D - 1
E - 1

0 = Empty Accumulator
1 = Full Accumulator