

Attachment 4

Quad Cities Station Unit 2, DPR-30
Proposed Technical Specification Changes

Revised Pages: 3.6/4.6-5a
3.6/4.6-6
3.6/4.6-7
3.6/4.6-14
3.6/4.6-15, Table 3.6-1
3.6/4.6-15a, Table 3.6-1
3.6/4.6-15b, Table 3.6-1

New Pages: 3.6/4.6-15c, Table 3.6-1
3.6/4.6-15d, Table 3.6-1

Deleted Page: 3.6/4.6-13a

sooner returned to service.

1. Shock Suppressors (Snubbers)

1. During all modes of operation except Shutdown and Refuel, all snubbers listed in Table 3.6-1 shall be operable except as noted in 3.6.1.2 following.
2. From and after the time that a snubber is determined to be inoperable, continued reactor operation is permissible during the succeeding 72 hours only if the snubber is sooner made operable.
3. If the requirements of 3.6.1.1 and 3.6.1.2 cannot be met, an orderly shutdown shall be initiated and the reactor shall be in a cold shutdown condition within 36 hours.
4. If a snubber is determined to be inoperable while the reactor is in the Shutdown or Refuel mode, the snubber shall be made operable prior to reactor start-up.
5. Snubbers may be added to safety-related systems without prior license Amendment to Table 3.6-1 provided that a revision to Table 3.6-1 is included with the next license amendment request.

1. Shock Suppressors (Snubbers)

The following surveillance requirements apply to all snubbers listed in Table 3.6-1.

1. Visual inspections shall be performed in accordance with the following schedule utilizing the acceptance criteria given by Specification 4.6.1.2.

Number of Snubbers Found Inoperable During Inspection or During Inspection Interval	Next Required Inspection Interval
0	18 months ± 25%
1	12 months ± 25%
2	6 months ± 25%
3,4	124 days ± 25%
5,6,7	62 days ± 25%
≥8	31 days ± 25%

The required inspection interval shall not be lengthened more than one step at a time.

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.

2. Visual Inspections shall verify:
 - a. There are no visible indications of damage or impaired operability, and
 - b. Attachments to the foundation or supporting structure are secure.
 - c. For hydraulic snubbers, the hydraulic fluid reservoir and fluid connections shall be inspected for operability.
3. Once each refueling cycle a representative sample of 10% of the total of each type of snubber in use in the plant shall be functionally tested either in place or in a bench test. For each snubber that does not meet the functional test criteria, an additional 10% of that type of snubber shall be functionally tested.
4. The hydraulic snubber shall be functionally tested for operability, including verification of proper piston movement, lockup, and bleed.
5. The mechanical snubber functional test shall verify that the breakaway force that initiates free movement of the snubber rod in either tension or compression is less than the specified maximum force.

6. When a snubber is deemed inoperable, a review shall be conducted to determine the mode of failure and to decide if an engineering evaluation should be performed. If the engineering evaluation is deemed necessary, it will determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the supported component or system.
7. In addition to the regular sample, snubbers which failed the previous functional test shall be retested during the next test period. If a spare snubber has been installed in place of a failed snubber, then both the failed snubber (if it is repaired and installed in another position) and the spare snubber shall be retested. Test results of these snubbers may not be included for the resampling.

I. SNUBBERS

All snubbers are required OPERABLE to ensure that the structural integrity of the reactor coolant system and all other safety related systems is maintained during and following a seismic or other event initiating dynamic loads. Snubbers excluded from this inspection program are those installed on non-safety-related systems and then only if their failure or failure of the system on which they are installed, would have no adverse effect on any safety-related system.

The visual inspection frequency is based upon maintaining a constant level of snubber protection to systems. Therefore, the required inspection interval varies inversely with the observed snubber failures and is determined by the number of inoperable snubbers found during an 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 (nominal time less 25%) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

When the cause of the rejection of a snubber is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible, and verified by inservice functional testing, that snubber may be exempted from being counted as inoperable. Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber by visual inspection, or are similarly located or exposed to the same environmental conditions such as temperature, radiation, and vibration.

To provide assurance of snubber functional reliability, a representative sample of the installed snubbers will be functionally tested during plant shutdowns at refueling cycle intervals.

When a snubber is found inoperable, a review shall be performed to determine the snubber mode of failure. Results of the review shall be used to determine if an engineering evaluation of the safety-related system or component is necessary. The engineering evaluation shall determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the support component or system.

Observed failures of these sample snubbers shall require functional testing of additional units.

Hydraulic snubbers and mechanical snubbers may each be treated as a different entity for the above surveillance programs.

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Table 3.6-1

SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)

Type*	Snubber Number	Location	Elevation (feet)	Snubber in High Radiation Area During Shutdown	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
M	2-1	Drywell; core spray return line 2-1403-10"	644	X		X	
M	2-2	Drywell; core spray return line 2-1403-10"	644	X		X	
M	2-3	Drywell; core spray return line 2-1404-10"	642	X		X	
M	2-4	Drywell; core spray return line 2-1404-10"	642	X		X	
M	2-5	Drywell; RHR return line 2-1012A-16"	603	X		X	
M	2-6	Drywell; RHR return line 2-1012A-16"	599	X		X	
M	2-7	Drywell; RHR return line 2-1012B-16"	598	X		X	
M	2-8	Drywell; RHR return line 2-1012B-16"	603	X		X	
M	2-9	Drywell; RHR shutdown cooling supply line 2-1025-20"	601	X		X	

*M = Mechanical Snubber
H = Hydraulic Snubber

Table 3.6-1

SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)

Type*	Snubber Number	Location	Elevation (feet)	Snubber In High Radiation Area During Shutdown	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
M	2-10	Drywell; RHR shutdown cooling supply line 2-1025-20"	601	X		X	
M	2-11	Drywell; "A" recirculation pump to shield wall	586 at 135°	X	X	X	
M	2-12	Drywell; "B" recirculation pump to shield wall	586 at 315°	X	X	X	
M	2-13	Drywell; "A" recirculation pump to support	586 at 146.5°	X	X	X	
M	2-14	Drywell; "B" recirculation pump to support	586 at 326.5°	X	X	X	
M	2-15	Drywell; "B" recirculation pump to support	586 at 304	X	X	X	
M	2-16	Drywell; recirculation ring header	610 at 90°	X	X	X	
M	2-17	Drywell; recirculation ring header	610 at 270°	X	X	X	
M	2-18	Drywell; "A" recirculation pump motor to support	612 at 135°	X	X	X	

*M = Mechanical Snubber
H = Hydraulic Snubber

Table 3.6-1

SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)

Type*	Snubber Number	Location	Elevation (feet)	Snubber in High Radiation Area During Shutdown	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
M	2-19	Drywell; "B" recirculation pump motor to support	612 at 315°	X	X	X	
M	2-20	Drywell; recirculation ring header to support	612 at 195°	X	X	X	
M	2-21	Drywell; "A" recirculation pump to support	588 at 124°	X	X	X	
M	2-22	Drywell; "A" recirculation pump motor to shield wall	602 at 122°	X		X	
M	2-23	Drywell; "A" recirculation pump motor to shield wall	602 at 148°	X		X	
M	2-24	Drywell; "B" recirculation pump motor to shield wall	602 at 302°	X		X	
M	2-25	Drywell; "B" recirculation pump motor to shield wall	602 at 328°	X		X	
M	2-26	Drywell; main stream relief valve 2-203-3A	619	X	X	X	
M	2-27	Drywell; main stream relief valve 2-203-3A	619	X	X	X	

*M = Mechanical Snubber
H = Hydraulic Snubber

Table 3.6-1

SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)

Type*	Snubber Number	Location	Elevation (feet)	Snubber in High Radiation Area During Shutdown	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
M	2-28	Drywell; main stream relief valve 2-203-3A	619	X	X	X	
M	2-29	Drywell; main stream relief valve 2-203-3A	619	X	X	X	
M	2-30	Drywell; northeast end of CRD cluster	605	X		X	
M	2-31	Drywell; northwest end of CRD cluster	605	X		X	
M	2-32	Drywell; southeast end of CRD cluster	605	X		X	
M	2-33	Drywell; southwest end of CRD cluster	605	X		X	
H	2-34	Reactor bldg; RHR Pump D supply line 2-1016D-14"	558	X			X
H	2-35	Reactor bldg; RHR Pump D supply line 2-1016D-14"	558	X			X
H	2-36	Reactor bldg; RHR shutdown cooling supply line 2-1025-20"	591		X		X

*M = Mechanical Snubber
H = Hydraulic Snubber

Table 3.6-1

SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)

Type*	Snubber Number	Location	Elevation (feet)	Snubber in High Radiation Area During Shutdown	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
H	2-37	Reactor bldg; HPCI steam supply line 2-2305-10"	588		X		X
H	2-38	Reactor bldg; Pressure Suppression vent line 2-1603-18"	646				X
H	2-39	Reactor bldg; SBGTS vent line 2-1607-6"	655				X
H	2-40	Reactor bldg; SBGTS vent line 2-1607-6"	655				X
H	2-41	MSIV Rm; RCIC steam line 2-1307-3"	605	X			X
H	2-42	MSIV Rm; RCIC steam line 2-1307-3"	605	X			X

*M = Mechanical Snubber
H = Hydraulic Snubber