

Attachment 2

Changes to LRA Chapter 2 Table Links

Dresden Nuclear Power Station

Quad Cities Nuclear Power Station

Changes to LRA Chapter 2 Table Links

Introduction:

Every system and structure description contained in Chapter 2 of the License Renewal Application (LRA) contains a table that provides all of the component groups within that system requiring aging management. During the creation of the Aging Management Review Aid, some changes were identified to the information contained in some of those tables. Specifically, a small number of aging management references linking component groups to the appropriate aging management analysis in Chapter 3 require revision.

Most of the changes are deletions of aging management reference links that do not apply to that system. In addition, a very small number of aging management reference links were found missing for some component groups. The aging management analysis for these component groups is described in Chapter 3 of the LRA, but the aging management reference link was not included in the LRA. All of the additions and deletions involve aging management references to external environments.

The tables below contain the corrections for all of the affected Chapter 2 line items. The Chapter 2 table number and title are provided for each table and only those component groups requiring change are listed. Additions and deletions to aging management reference links are shown in bar and strike.

Table 2.3.1-5 Component Groups Requiring Aging Management Review - Reactor Recirculation System 002B

Component Group	Component Intended Function	Aging Management Ref
Filters/Strainers (spatial interaction) (Quad Cities only)	Leakage Boundary (spatial)	3.1.2.3, 3.1.2.8 , 3.1.2.12
Piping and Fittings	Pressure Boundary	3.1.1.1, 3.1.1.15, <u>3.1.2.8</u>
Valves	Pressure Boundary	3.1.1.1, 3.1.1.9, 3.1.1.15, <u>3.1.2.3</u> , 3.1.2.7, 3.1.2.8, 3.1.2.45, 3.1.2.50
Valves (attached support)	Structural Integrity (attached)	<u>3.1.2.8</u> , 3.1.2.48, 3.1.2.49, 3.1.2.51, 3.1.2.52, 3.1.2.53
Valves (spatial interaction) (Quad Cities only)	Leakage Boundary (spatial)	3.1.2.3, 3.1.2.8 , <u>3.1.2.7</u> , 3.1.2.45, 3.1.2.46, 3.1.2.47, 3.1.2.52, 3.1.2.53

Table 2.3.1-6 Component Groups Requiring Aging Management Review - Reactor Vessel Head Vents 002E

Component Group	Component Intended Function	Aging Management Ref
Tubing	Pressure Boundary	3.1.1.15, 3.1.2.4, 3.1.2.8, 3.1.2.41

Table 2.3.1-7 Component Groups Requiring Aging Management Review – Nuclear Boiler Instrumentation 002F

Component Group	Component Intended Function	Aging Management Ref
Filters/Strainers (spatial interaction) (Dresden only)	Leakage Boundary (spatial)	3.1.2.13, 3.1.2.7, 3.1.2.8
Piping and Fittings (attached support)	Structural Integrity (attached)	3.1.2.3, 3.1.2.4, 3.1.2.7, 3.1.2.8, 3.1.2.23, 3.1.2.24
Valves (spatial interaction)	Leakage Boundary (spatial)	3.1.2.83, 3.1.2.7, 3.1.2.49, 3.1.2.52, 3.1.2.53

Table 2.3.2-1 Component Groups Requiring Aging Management Review – High Pressure Coolant Injection System 023A

Component Group	Component Intended Function	Aging Management Ref
Piping and Fittings (small bore)	Pressure Boundary	3.1.1.5, 3.2.2.9, 3.2.2.10, 3.2.2.13, 3.2.2.14, 3.2.2.22, 3.2.2.23, 3.2.2.24, 3.2.2.25, 3.2.2.26, 3.2.2.27, 3.2.2.28, 3.2.2.137,
Restricting Orifices (attached support)	Structural Integrity (attached)	3.2.2.72, 3.2.2.13, 3.2.2.128, 3.2.2.137

Table 2.3.2-2 Component Groups Requiring Aging Management Review Core Spray System

Component Group	Component Intended Function	Aging Management Ref
Sight Glasses (attached support)	Structural Integrity (attached)	3.2.2.14, 3.2.2.75, 3.2.2.137

Table 2.3.2-3 Component Groups Requiring Aging Management Review – Containment Isolation Components and Primary Containment Piping System 016A

Component Group	Component Intended Function	Aging Management Ref
Isolation Barriers (includes piping, tubing, valves, and vacuum breakers)	Pressure Boundary	3.2.1.3, 3.2.1.5, 3.2.1.6, 3.2.2.11, 3.2.2.12, 3.2.2.14, 3.2.2.22, 3.2.2.24, 3.2.2.49, 3.2.2.50, 3.2.2.51, 3.2.2.52, 3.2.2.53, 3.2.2.137
Isolation Barriers (attached support) (includes piping and valves)	Structural Integrity (attached)	3.2.2.11, 3.2.2.22, 3.2.2.49, 3.2.2.52
Tubing	Pressure Boundary	3.2.1.13, 3.2.2.14, 3.2.2.18, 3.2.2.19, 3.2.2.22, 3.2.2.24, 3.2.2.90, 3.2.2.91, 3.2.2.98, 3.2.2.137
Tanks (includes drain pots)	Pressure Boundary	3.2.2.11, 3.2.1.13, 3.2.2.3, 3.2.2.22

Table 2.3.2-4 Component Groups Requiring Aging Management Review – Reactor Core Isolation Cooling System (Quad Cities only) LRID 013B

Component Group	Component Intended Function	Aging Management Ref
Filters/Strainers (Quad Cities only)	Pressure Boundary	3.2.1.13, 3.2.2.22, 3.2.2.32, 3.2.2.137
Piping and Fittings (small bore) (Quad Cities only)	Pressure Boundary	3.1.1.5, 3.2.2.23, 3.2.2.24, 3.2.2.137
Valves (small bore) (Quad Cities only)	Pressure Boundary	3.1.1.5, 3.2.2.13, 3.2.2.14, 3.2.2.22, 3.2.2.23, 3.2.2.24, 3.2.2.137

Table 2.3.2-5 Component Groups Requiring Aging Management Review – Isolation Condenser (Dresden only) LRID 013A

Component Group	Component Intended Function	Aging Management Ref
Piping and Fittings (attached support) (Dresden only)	Structural Integrity (attached)	3.2.2.13, 3.2.2.14, 3.2.2.15, 3.2.2.22, 3.2.2.23, 3.2.2.24, 3.2.2.25, 3.2.2.61, 3.2.2.137
Piping and Fittings (small bore) (Dresden only)	Pressure Boundary	3.1.1.5, 3.2.2.13, 3.2.2.14, 3.2.2.15, 3.2.2.22, 3.2.2.23, 3.2.2.24, 3.2.2.25, 3.2.2.137
Valves (Dresden only)	Pressure Boundary	3.1.1.1, 3.1.1.15, 3.2.1.2, 3.2.1.4, 3.2.1.12, 3.2.2.13, 3.2.2.14, 3.2.2.15, 3.2.2.22, 3.2.2.23, 3.2.2.24, 3.2.2.25, 3.2.2.122, 3.2.2.137

Table 2.3.2-6 Component Groups Requiring Aging Management Review – Residual Heat Removal System (Quad Cities only) LRID 015AQ

Component Group	Component Intended Function	Aging Management Ref
Dampeners (Quad Cities only)	Pressure Boundary	3.2.2.22, 3.2.2.23, 3.2.2.30

Table 2.3.2-8 Component Groups Requiring Aging Management Review – Standby Liquid Control System LRID 011A

Component Group	Component Intended Function	Aging Management Ref
Piping and Fittings (includes accumulators)	Pressure Boundary	3.1.1.1, 3.1.1.15, 3.3.1.5, 3.3.1.23, 3.3.2.40, 3.3.2.42, 3.3.2.139, 3.3.2.164, 3.3.2.165
Accumulators	Pressure Boundary	3.3.1.5, 3.3.2.3, 3.3.2.40

Table 2.3.2-9 Component Groups Requiring Aging Management Review – Standby Gas Treatment System LRID 075A

Component Group	Component Intended Function	Aging Management Ref
Duct (includes piping and fittings)	Pressure Boundary	3.2.1.3, 3.2.2.15, 3.2.2.16

Table 2.3.3-2 Component Groups Requiring Aging Management Review – Shutdown Cooling System (Dresden only) LRID 010A

Component Group	Component Intended Function	Aging Management Ref
Restricting Orifices (Dresden only)	Pressure Boundary	3.3.1.5, 3.3.1.8, 3.3.1.25, 3.3.2.40

Table 2.3.3-3 Component Groups Requiring Aging Management Review – Control Rod Drive Hydraulic System LRID 003A

Component Group	Component Intended Function	Aging Management Ref
Dampeners (Quad Cities only)	Pressure Boundary	3.3.1.5, 3.3.1.8, 3.3.1.25, 3.3.2.40
Dampeners (spatial interaction) (Quad Cities only)	Leakage Boundary (spatial)	3.3.1.5, 3.3.1.8, 3.3.1.25, 3.3.2.40
Flow Elements (spatial interaction)	Leakage Boundary (spatial)	3.3.1.5, 3.3.1.8, 3.3.1.25, 3.3.2.40
Flow Elements (Dresden only)	Pressure Boundary	3.3.1.5, 3.3.1.8, 3.3.1.25, 3.3.2.40
Piping and Fittings (spatial interaction)	Leakage Boundary (spatial)	3.3.1.5, 3.3.1.8, 3.3.1.25, 3.3.2.40
Piping and Fittings (attached support)	Structural Integrity (attached)	3.3.1.5, 3.3.1.8, 3.3.1.25, 3.3.2.40
Restricting Orifices (Dresden only)	Pressure Boundary	3.3.1.5, 3.3.1.8, 3.3.1.25, 3.3.2.40
Tubing	Pressure Boundary	3.3.1.5, 3.3.1.8, 3.3.1.17, 3.3.1.25, 3.3.2.34, 3.3.2.40, 3.3.2.242, 3.3.2.248
Valves (spatial interaction)	Leakage Boundary (spatial)	3.3.1.5, 3.3.1.8, 3.3.1.25, 3.3.2.40

Table 2.3.3-4 Component Groups Requiring Aging Management Review – Reactor Water Cleanup System LRID 012A

Component Group	Component Intended Function	Aging Management Ref
Piping and Fittings (attached support)	Structural Integrity (attached)	3.3.1.5, 3.3.1.8, 3.3.2.40, 3.3.1.25
Piping and Fittings (spatial interaction) (Quad Cities only)	Leakage Boundary (spatial)	3.3.1.5, 3.3.1.8, 3.3.1.25, 3.3.2.40

Table 2.3.3-5 Component Groups Requiring Aging Management Review – Fire Protection System LRID 041A

Component Group	Component Intended Function	Aging Management Ref
Piping and Fittings (includes flex hoses, hose reels, hoses, nozzles, tubing, sprinklers, and gaskets of buried fire mains)	Pressure Boundary	3.3.1.5, 3.3.1.16, 3.3.1.19, 3.3.1.20, <u>3.3.2.23</u> , 3.3.2.26, 3.3.2.30, 3.3.2.33, 3.3.2.34, 3.3.2.38, 3.3.2.39, 3.3.2.40, 3.3.2.131, 3.3.2.138, 3.3.2.144, 3.3.2.150, 3.3.2.153, 3.3.2.154, 3.3.2.157, 3.3.2.158, 3.3.2.300
Sprinklers (includes nozzles)	Pressure Boundary	3.3.1.5, 3.3.1.19, <u>3.3.2.23</u> , 3.3.2.26, 3.3.2.205, 3.3.2.206
Valves (Fire Protection) (includes hydrants, and nozzles)	Pressure Boundary	3.3.1.19, <u>3.3.2.31</u> , <u>3.3.2.32</u> , <u>3.3.2.33</u> , <u>3.3.2.300</u> , 3.3.2.301
Valves (includes nozzles)	Pressure Boundary	3.3.1.5, 3.3.1.19, 3.3.1.20, <u>3.3.2.40</u> , <u>3.3.2.23</u> , 3.3.2.31, 3.3.2.32, 3.3.2.300, 3.3.2.260, 3.3.2.262, 3.3.2.265, 3.3.2.283, <u>3.3.2.301</u>

Table 2.3.3-6 Component Groups Requiring Aging Management Review – Emergency Diesel Generator and Auxiliaries LRID 066A

Component Group	Component Intended Function	Aging Management Ref
Air Accumulator Vessels (includes tanks)	Pressure Boundary	3.3.1.5, 3.3.2.6, <u>3.3.2.40</u>
Filters/Strainers	Pressure Boundary	3.3.1.5, 3.3.2.29, <u>3.3.2.43</u> , 3.3.2.55, 3.3.2.58, 3.3.2.60, <u>3.3.2.300</u>
Piping and Fittings (Includes dryers, heaters and tubing)	Pressure Boundary	3.3.1.5, 3.3.1.13, 3.3.2.21, 3.3.2.23, 3.3.2.29, <u>3.3.2.40</u> , 3.3.2.132, 3.3.2.133, 3.3.2.134, 3.3.2.137, 3.3.2.139, 3.3.2.147, 3.3.2.159, 3.3.2.300
Piping and Fittings (attached support)	Structural Integrity (attached)	3.3.1.5, 3.3.1.7, 3.3.1.13, <u>3.3.2.23</u> , 3.3.2.139
Restricting Orifices	Pressure Boundary	3.3.1.5, <u>3.3.2.40</u> , 3.3.2.187
Tubing	Pressure Boundary	3.3.1.5, 3.3.1.15, <u>3.3.2.23</u> , 3.3.2.34, 3.3.2.40, 3.3.2.232, 3.3.2.233, 3.3.2.235, 3.3.2.236, 3.3.2.237, 3.3.2.240, 3.3.2.241, 3.3.2.245, 3.3.2.249, 3.3.2.250

Table 2.3.3-7: Component Groups Requiring Aging Management Review – HVAC – Main Control Room LRID 057A

Component Group	Component Intended Function	Aging Management Ref
Air Handlers Heating/Cooling (CR HVAC)	Pressure Boundary	3.3.1.5, 3.3.2.11, 3.3.2.21
Sight Glasses	Pressure Boundary	3.3.2.34 , 3.3.2.196, 3.3.2.198

Table 2.3.3-11 Component Groups Requiring Aging Management Review – Station Blackout (diesels and auxiliaries) LRID 066B

Component Group	Component Intended Function	Aging Management Ref
Restricting Orifices	Pressure Boundary	3.3.1.5 , 3.3.2.40, 3.3.2.190, 3.3.2.191, 3.3.2.192

Table 2.3.3-13 Component Groups Requiring Aging Management Review – Diesel Fuel Oil System LRID 052A

Component Group	Component Intended Function	Aging Management Ref
Filters/Strainers	Pressure Boundary	3.3.1.5, 3.3.1.7, 3.3.1.20, 3.3.2.21, 3.3.2.50, 3.3.2.54, 3.3.2.300
Valves	Pressure Boundary	3.3.1.5, 3.3.1.7, 3.3.1.20, 3.3.2.23, 3.3.2.40, 3.3.2.259, 3.3.2.288, 3.3.2.300

Table 2.3.3-16 Component Groups Requiring Aging Management Review – Service Water System LRID 039A

Component Group	Component Intended Function	Aging Management Ref
Piping and Fittings (Dresden only)	Pressure Boundary	3.3.1.5, 3.3.1.15, 3.3.1.16, 3.3.2.26, 3.3.2.29, 3.3.2.40, 3.3.2.45, 3.3.2.169
Valves (Dresden only)	Pressure Boundary	3.3.1.5, 3.3.1.13, 3.3.1.15, 3.3.1.27, 3.3.2.23, 3.3.2.31, 3.3.2.40, 3.3.2.45, 3.3.2.262, 3.3.2.276, 3.3.2.277, 3.3.2.279, 3.3.2.280, 3.3.2.298, 3.3.2.300

Table 2.3.3-17 Component Groups Requiring Aging Management Review – Reactor Building Closed Cooling Water System LRID 037A

Component Group	Component Intended Function	Aging Management Ref
Piping and Fittings (attached support) (Quad Cities only)	Structural Integrity (attached)	3.3.1.5, 3.3.1.13, 3.3.2.40
Tubing (Dresden only)	Pressure Boundary	3.3.1.5 , 3.3.1.13, 3.3.2.233

Table 2.3.3-19 Component Groups Requiring Aging Management Review – Makeup Demineralizer System LRID 043A

Component Group	Component Intended Function	Aging Management Ref
Valves	Pressure Boundary	3.3.1.5, 3.3.2.23, 3.3.2.29, 3.3.2.272
Valves (spatial interaction)	Leakage Boundary (spatial)	3.3.1.5, 3.3.2.23 , 3.3.1.25, 3.3.2.40, 3.3.2.257, 3.3.2.272

Table 2.3.3-20 Component Groups Requiring Aging Management Review – Residual Heat Removal Service Water System (Quad Cities only) LRID 015BQ

Component Group	Component Intended Function	Aging Management Ref
Pulsation Dampeners (Quad Cities only)	Pressure Boundary	3.3.1.15, 3.3.2.24 , 3.3.2.41
Valves (attached support) (Quad Cities only)	Structural Integrity (attached)	3.3.1.5, 3.3.1.15, 3.3.1.27, 3.2.2.23, 3.3.2.24, 3.3.2.26, 3.3.2.31, 3.3.2.40 , 3.3.2.276, 3.3.2.277, 3.3.2.300

Table 2.3.3-27 Component Groups Requiring Aging Management Review – Drywell Nitrogen Inerting System LRID 085A

Component Group	Component Intended Function	Aging Management Ref
Piping and Fittings	Pressure Boundary	3.3.1.5, 3.3.2.27 , 3.3.2.40, 3.3.2.138, 3.3.2.161
Tanks (includes vaporizers)	Pressure Boundary	3.3.1.5, 3.3.2.21, 3.3.2.40 , 3.3.2.210, 3.3.2.212

Table 2.3.4-1 Component Groups Requiring Aging Management Review – Main Steam LRID 030A

Component Group	Component Intended Function	Aging Management Ref
Accumulators	Pressure Boundary	3.4.2.1, 3.4.2.11, 3.4.2.13
Piping and Fittings (small bore)	Pressure Boundary	3.1.1.5, 3.4.1.3, 3.4.2.5, 3.4.2.6, 3.4.2.11, 3.4.2.13
Tanks (Quad Cities only)	Pressure Boundary	3.1.1.15, 3.4.2.11, 3.4.2.13
Vacuum Breakers	Pressure Boundary	3.2.1.3, 3.2.1.5, 3.4.2.13

Table 2.3.4-2 Component Groups Requiring Aging Management Review – Feedwater System LRID 032A

Component Group	Component Intended Function	Aging Management Ref
Piping and Fittings (small bore) (Quad Cities only)	Pressure Boundary	3.1.1.5, 3.4.1.3, 3.4.2.5, 3.4.2.6