2.3.3.1 Auxiliary Building Ventilation System

McGuire Nuclear Station – The Auxiliary Building Ventilation System automatically aligns to maintain the Emergency Core Cooling System (ECCS) Pump Rooms at a negative pressure so that air exhausted from these rooms is filtered prior to being released following a Design Basis Accident (DBA). The ECCS Pump Rooms include the Safety Injection Pumps, Residual Heat Removal Pumps, Centrifugal Charging Pumps and Containment Spray Pumps. The McGuire UFSAR Section 9.4.2, Auxiliary Building, provides additional information concerning the McGuire Auxiliary Building Ventilation System. The mechanical components subject to aging management review, their intended functions, and materials of construction for the McGuire Auxiliary Building Ventilation System are listed in Table 3.3-1.

The following is a list of the flow diagrams that have been marked to indicate the license renewal evaluation boundary for the McGuire Auxiliary Building Ventilation System:

MC-1577-1	MC-1577-5	~~MC-1577-9~~
MC-1577-2	~~MC-1577-8~~	MC-2577-1
~~MC-1577-4~~		

These flow diagrams are contained in Reference [2.3.3-1].

Catawba Nuclear Station – The Auxiliary Building Ventilation System automatically aligns to maintain the Emergency Core Cooling System (ECCS) Pump Rooms at a negative pressure so that air exhausted from these rooms is filtered prior to being released following a Design Basis Accident (DBA). The ECCS Pump Rooms include the Safety Injection Pumps, Residual Heat Removal Pumps, Centrifugal Charging Pumps and Containment Spray Pumps. The Catawba UFSAR Section 9.4.3, Auxiliary Building Ventilation System provides additional information concerning the Catawba Auxiliary Building Ventilation System. The mechanical components subject to aging management review, their intended functions, and materials of construction for the Catawba Auxiliary Building Ventilation System are listed in Table 3.3-1.

The following is a list of the flow diagrams that have been marked to indicate the license renewal evaluation boundary for the Catawba Auxiliary Building Ventilation System:

CN-1577-1.0	CN-1577-1.3	CN-1577-3.0
CN-1577-1.2	CN-1577-1.8	CN-2577-3.0

These flow diagrams are contained in Reference [2.3.3-1].

3.3.2 AGING MANAGEMENT PROGRAMS

The following aging management programs and activities are credited to manage the effects of aging for the auxiliary systems listed in Section 3.3:

- Chemistry Control Program *
- Fire Protection Program*
- Flow Accelerated Corrosion Program *
- Fluid Leak Management Program *
- Galvanic Susceptibility Inspection *
- Heat Exchanger Preventive Maintenance Activities – Component Cooling
- Heat Exchanger Preventive Maintenance Activities – Diesel Generator Engine Cooling Water
- Heat Exchanger Preventive Maintenance Activities – Diesel Generator Engine Starting Air
- Heat Exchanger Preventive Maintenance Activities – Pump Motor Air Handling Units
- Heat Exchanger Preventive Maintenance Activities – Pump Oil Coolers
- Heat Exchanger Preventive Maintenance – Control Area Chilled Water
- Inspection Program for Civil Engineering Structures and Components *
- Liquid Waste System Inspection
- Preventive Maintenance Activities – Condenser Circulating Water Systems Internal Coatings Inspection
- Performance Testing Activities – Component Cooling Heat Exchangers
- Performance Testing Activities – Diesel Engine Cooling Water Heat Exchanger
- Performance Testing Activities – Diesel Generator Engine Cooling Water Heat Exchanger
- Selective Leaching Inspection*
- Service Water Piping Corrosion Program*
- Sump Pump System Inspection
- Treated Water Systems Stainless Steel Inspection*
- Waste Gas System Inspection

* *This aging management program/activity is equivalent to the corresponding program/activity that has been previously reviewed and found acceptable by the NRC staff during the Oconee License Renewal review, as documented in NUREG-1723.*

Based on the evaluations provided in Appendix B for the aging management programs and activities listed above, the aging effects will be adequately managed such that the intended functions of the components listed in Tables 3.3-1 through 3.3-40 will be maintained consistent with the current licensing basis for the period of extended operation.

Generator

Table 3.3-15 Aging Management Review Results – Diesel Generator Cooling Water System (McGuire Nuclear Station) (continued)

1	2	3	4	5	6
Component Type	**Component Function (Note 1)**	**Material (Note 2)**	**Internal Environment / External Environment**	**Aging Effect**	**Aging Management Programs and Activities**
D/G Engine Cooling Water Heat Exchangers (tubes)	HT, PB	Cu	Raw Water	Fouling	Performance Test Activity – Diesel Engine Cooling Water Heat Exchanger
				Loss of Material	Heat Exchanger Preventive Maintenance Activities – Diesel Generator Engine Cooling Water
			Treated Water	Fouling	Chemistry Control Program
				Loss of Material	Chemistry Control Program
D/G Engine Cooling Water Heat Exchangers (tube sheets)	PB	CS	Raw Water	Loss of Material	Galvanic Susceptibility Inspection Service Water Piping Corrosion Program
			Treated Water	Cracking	Chemistry Control Program
				Loss of Material	Chemistry Control Program
D/G Engine Cooling Water Turbocharger Intercoolers (channel heads)	PB	CS	Treated Water	Cracking	Chemistry Control Program
				Loss of Material	Chemistry Control Program
			Sheltered	Loss of Material	Inspection Program for Civil Engineering Structures and Components
D/G Engine Cooling Water Turbocharger Intercoolers (shells)	PB	CS	Ventilation	None Identified	None Required
			Sheltered	Loss of Material	Inspection Program for Civil Engineering Structures and Components

Aging Management Programs and Activities

Topic	*UFSAR / ITS Location*	*New*	*Existing*	*MNS*	*CNS*	*ONS*	*Corresponding GALL*[1]	
							1 / 0	*#*
Alloy 600 Aging Management Review		1	0	1	1	1	1	M11
Battery Rack Inspections	ITS SR 3.8.4.3 SLC 16.8.3.3 SLC 16.9.7.12 SLC 16.9.7.17	0	1	1	1	1	0	
Boraflex Monitoring Program	SLC 16.9.24	0	1	1	0	1	1	M22
Borated Water Systems Stainless Steel Inspection		1	0	1	1	1	1	M32
Bottom-Mounted Instrumentation to Thimble Tube Inspection Program		0	1	1	1	0	0	
Chemistry Control Program		0	1	1	1	1	1	M2, M21, M30
Containment Inservice Inspection Plan – IWE		0	1	1	1	1	1	S1
Containment Leak Rate Testing Program	ITS 3.6.1 ITS 5.5.2	0	1	1	1	1	1	S4

[1] Corresponding GALL programs are noted along with GALL #. Corresponding means that there is a program title in GALL that is similar or equivalent to the Duke program and not that it is functionally similar or equivalent.

Aging Management Programs and Activities

Topic	*UFSAR / ITS Location*	*New*	*Existing*	*MNS*	*CNS*	*ONS*	*Corresponding GALL[1]*	
							1 / 0	*#*
Control Rod Drive Mechanism Nozzle and Other Vessel Closure Penetrations Inspection Program		1	0	1	1	1	1	M11
Crane Inspection Program		0	1	1	1	1	1	M23
Divider Barrier Seal Inspection and Testing Program	ITS SR 3.6.14.2 ITS SR 3.6.14.4 ITS SR 3.6.14.5	0	1	1	1	0	0	
Environmental Qualficiation (TLAA)		0	1	1	1	1	1	X.E1
Fire Protection Program	SLC 16.9.5	0	0	0	0	0	0	
Fire Barriers		0	1	1	1	1	1	M26
Fire Suppression		1	0	1	1	0	1	M27
Flood Barrier Inspection		0	1	1	0	0	0	
Flow Accelerated Corrosion Program		0	1	1	1	1	1	M17
Fluid Leak Management		0	1	1	1	1	1	M10
Galvanic Susceptibility Inspection		1	0	1	1	1	1	M32
Heat Exchanger Activities		0	0	0	0	0	0	
KC Heat Exchanger - PT		0	1	1	1	0	0	
KC Heat Exchanger - PM		0	1	1	1	0	0	

Aging Management Programs and Activities

Topic	UFSAR / ITS Location	New	Existing	MNS	CNS	ONS	Corresponding GALL[1]	
							1 / 0	#
NS Heat Exchanger - PT		0	1	1	1	0	0	
NS Heat Exchanger - PM		0	1	1	1	0	0	
KD Heat Exchangers - PT		0	1	1	1	0	0	
KD Heat Exchangers - PM		0	1	1	1	0	0	
YC Chillers		0	1	1	1	0	0	
VG Aftercoolers		0	1	0	1	0	0	
Pump Motor Air Handling Units		1	0	1	0	0	0	
Pump Oil Coolers		1	0	1	0	0	0	
Ice Condenser Inspections		0	0	0	0	0	0	
Ice Basket Inspection		0	1	1	1	0	0	
Ice Condenser Engineering Inspection		0	1	1	1	0	0	
Inaccessible Non-EQ Medium Voltage Cables Program		1	0	1	1	1	1	E3
Inservice Inspection Plan		0	0	0	0	0	0	
Subsection IWB and IWC		0	1	1	1	1	1	M1

Aging Management Programs and Activities

Topic	UFSAR / ITS Location	New	Existing	MNS	CNS	ONS	Corresponding GALL[1]	
							1 / 0	#
Inservice Inspection Program – CASS (Unit 1 Loop B 27 ½"Elbow)		1	0	1	0	0	1	M12, M13
Inservice Inspection Program – Small Bore Piping (Risk-Informed ISI)		1	0	1	1	1[2]	0	
Subsection IWF		0	1	1	1	1	1	S3
Inspection Program for Civil Engineering Structures and Components		0	1	1	1	1	1	S6
Liquid Waste Inspection		1	0	1	1	0	1	M32
Non-EQ Insulated Cables and Connections Program		1	0	1	1	1	1	E1
Preventive Maintenance Activities		0	0	0	0	0	0	
RC Internals Coatings Inspection		0	1	1	1	1	0	
RWST Internal Coating Inspection		0	1	1	0	1	0	
Reactor Coolant System Operational Leakage	ITS 3.4.13 ITS 3.4.15	0	1	1	1	1	0	
Reactor Vessel Integrity Program		0	1	1	1	1	1	M31

[2] Oconee committed to a one-time examination of small bore piping in lieu of using the risk-informed ISI approach.

Aging Management Programs and Activities

Topic	UFSAR / ITS Location	New	Existing	MNS	CNS	ONS	Corresponding GALL[1]	
							1 / 0	#
Reactor Vessel Internals Inspection		1	0	1	1	1	1	M16
Selective Leaching Inspection		1	0	1	1	1	1	M33
Service Water Piping Corrosion Program		0	1	1	1	1	1	M20
Standby Nuclear Service Water Pond Dam Inspection	ITS SR 3.7.8.3	0	1	1	1	0	0	
Standby Nuclear Service Water Pond Volume Depletion (TLAA)		0	1	0	1	0	0	
Steam Generator Surveillance Program	ITS 5.5.9	0	1	1	1	1	1	M19
Sump Pump Systems Inspection		1	0	1	1	0	1	M32
Technical Specification SR 3.6.16.3 Visual Inspection	ITS SR 3.6.16.3	0	1	1	1	0	0	
Thermal Fatigue Management (TLAA)		0	1	1	1	1	1	X.M1
Treated Water Stainless Steel Inspection		1	0	1	1	1	1	M32
Underwater Inspection of Nuclear Service Water Structures		0	1	1	1	1	1	S7
Waste Gas System Inspection		1	0	1	1	0	1	M32

Aging Management Programs and Activities

Topic	UFSAR / ITS Location	New	Existing	MNS	CNS	ONS	Corresponding GALL[1]	
							1 / 0	#
Totals		17	37	52	48	15	31	