

Exceptions to GALL Program Elements (after PBD reviews to eliminate exceptions)

		Element						
Palisades Program	GALL Section	5.1 Scope of Program	5.2 Preventive Actions	5.3 Parameters Monitored, Inspected, and/or Tested	5.4 Detection of Aging Effects	5.5 Monitoring and Trending	5.6 Acceptance Criteria	5.7 through 5.10 Corrective Actions Confirmation Process Admin Controls Operating Experience
Alloy 600 Inspection Program LR-AMPBD-01-ALLOY600	XLM11	None	None	None	None	None	None	None
ASME Section XI IWB, IWC, IWD, IWF Inservice Inspection Program LR-AMPBD-02-ASMEISI	XLM1, XLM3, XLS3	None	None	None	None	None	None	None
Bolting Integrity Program LR-AMPBD-03-BOLTINTEG	XLM18	None	None	None	None	None	None	None
Boric Acid Corrosion Program LR-AMPBD-04-BAC	XLM10	None	None	None	None	None	None	None
Buried Services Corrosion Monitoring Program LR-AMPBD-05-BURIEDSVC	XLM34	None	None	None	None	None	None	None
Closed Cycle Cooling Water Program LR-AMPBD-06-CCCW	XLM21	None	None	NUREG-1801, section XLM21.3 states that, "For pumps, the parameters monitored include flow and discharge and suction pressures. For heat exchangers, the parameters monitored include flow, inlet and outlet temperatures, and differential pressure." Palisades does not credit active flow testing for managing age-related degradation of CCCW components. However, performance of selected heat exchangers is monitored in accordance with the Master Heat Exchanger Testing Plan (Ref. 8.15). The performance and operability testing of selected pumps, including flow, suction and discharge pressure, is monitored in accordance with the ASME Section XI Subsection IWP Inservice Testing Program, EM-09-04, "Inservice Testing of Selected Safety-Related Pumps" (Ref. 8.16). This is generally in accordance with the position taken by Fort Calhoun Station and V.C. Summer Nuclear Station in their license renewal applications, and accepted by the NRC in their respective Safety Evaluation Reports (References 8.35 & 8.36). See section 4.2 for a detailed discussion of Closed-Cycle Cooling Water Program Heat Exchanger and Pump performance and functional testing.	NUREG-1801 states "The extent and schedule of inspections and testing in accordance with EPRI TR-107396, assure detection of corrosion before the loss of intended function on the component. Performance and functional testing in accordance with EPRI TR-107396, ensures acceptable functional testing of the CCCW System or components serviced by the CCCW System." Palisades does not credit active performance and functional testing for managing age-related degradation of CCCW components. However, performance of selected heat exchangers is monitored in accordance with the Master Heat Exchanger Testing Plan (Ref. 8.15). The performance and operability testing of selected pumps, including flow, suction and discharge pressure, is monitored in accordance with the ASME Section XI Subsection IWP Inservice Testing Program, EM-09-04, "Inservice Testing of Selected Safety-Related Pumps" (Ref. 8.16). This is generally in accordance with the position taken by Fort Calhoun Station, and V.C. Summer Nuclear Station, and accepted by the NRC in their respective Safety Evaluation Reports (References 8.35 & 8.36) See section 4.2 for a detailed discussion of Closed-Cycle Cooling Water Program Heat Exchanger and Pump performance and functional testing.	1. See 5.3 and 5.4 above for a discussion of exceptions to the Gall Report related to performance and functional testing of pumps and heat exchangers.	1. See 5.3 and 5.4 above for a discussion of exceptions to the Gall Report related to performance and functional testing of pumps and heat exchangers.	None

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Containment Inservice Inspection Program LR-AMPBD-08-CONTISI	XIS1, XIS2, XSI	None	None	None	None	None	None	None
Containment Leak Rate Testing program LR-AMPBD-09-CONLRT	XIS4	None	None	None	None	None	None	None

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Diesel Fuel Monitoring and Storage Program LR-AMPBD-10-DSLFUEL	XLM30	None	<p>NUREG-1801 (Ref. 8.1) Section XI.M30 states, "The quality of fuel oil is maintained by additions of biocides to minimize biological activity, stabilizers to prevent biological breakdown of the diesel fuel, and corrosion inhibitors to mitigate corrosion."</p> <p>Palisades tests the fuel in T-10A periodically for microbiological growth. There is no operational experience that indicates a positive test for microbiological growth. In the event a test would come back positive for microbiological growth, an evaluation would be performed, per the corrective action program, to determine whether addition of biocides should be performed.</p> <p>Palisades performs periodic tests for particulates on the fuel oil storage tanks. Additionally, the stored fuel in T-10A Fuel Oil Storage Tank is filtered approximately every three years, or as needed (Ref. 8.30). The fuel oil storage tanks have a relatively fuel oil high turnover rate. T-10A typically has an operating volume of 38,000 gallons, with an average fuel consumption of 76,000 gallons. T-926 has a typical operating volume of 15,000 gallons, with an average fuel consumption rate of 35,000 gallons per year. Based on these activities, and high fuel turnover in the storage tanks, an assessment (Ref. 8.31) has determined that there is no need to add fuel oil stabilizers to the diesel fuel.</p> <p>Palisades's fuel oil is procured to meet ASTM D975 (Ref. 8.23) standards, which includes specifications and acceptance criteria for a Copper Strip Corrosion Test. Additionally, samples are periodically analyzed by an off-site facility for relative corrosivity of the fuel by a Copper Strip Corrosion Test. All Copper Strip Corrosion tests performed in the last 5 years have returned results that meet the ASTM standard. Consequently, Palisades does not add corrosion inhibitors to the diesel fuel. This is generally in accordance with the position taken Dresden and Quad cities Nuclear power Plants and accepted in NUREG 17967 pages 3-247 through 252.</p>	None	None	None	None	None
Electrical Equipment Qualification Program LR-AMPBD-11-EEQ	X.E1	None	None	None	None	None	None	None
Fatigue Monitoring Program LR-AMPBD-12-FATIGUE	X.M1	None	None	None	None	None	None	None

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Fire Protection Program LR-AMPBD-13-FIREPROT	XLM26, XLM27	None	None	None	XLM26 NUREG-1801, Section XLM26, as clarified by ISG-04, "Detection of Aging Effects", states, "Visual inspection (VT-1 or equivalent) of approximately 10% of each type of seal... Visual inspection (VT-1 or equivalent) of the fire barrier walls, ceilings, and floors... Visual inspection (VT-3 or equivalent) detects any signs of degradation of the fire door..." Palisades does not qualify the personnel performing the visual inspections of fire barrier walls, ceilings, floors, penetration seals and fire doors to the NDE type of qualification as stated in NUREG-1801 and ISG-04. Per FPSP-SO-2 (Ref. 8.57), FPSP-RP-11 (Ref. 8.55), and FPSP-RP-12 (Ref. 8.56) inspectors for fire barriers/doors/fire seals are qualified to perform those inspections, but are not necessarily qualified to VT-1 or VT-3. There are no regulatory requirements or any other type of requirements specifying that these inspections be performed to VT-1 or VT-3 standards. This is generally in accordance with the position taken by the Dresden and Quad Cities Nuclear Plants in their application for License Renewal, and subsequent NRC approval of this position in the associated Safety Evaluation Report	XLM27 NUREG-1801, Section XLM27, as clarified by ISG-04, states that the results of system performance testing are monitored and trended as specified by the NFPA codes and standards. At Palisades, inspection and testing is performed as outlined in Fire Protection Implementing Procedures. NFPA codes of record are identified in the Palisades Fire Protection Program Report (FPPR) (Ref. 8.27) and/or FSAR (Ref. 8.9). This is generally in accordance with the position taken by the Dresden and Quad Cities Nuclear Power Stations in their License Renewal Application (Ref. 8.45) and approved by the NRC in the associated Safety Evaluation Report	XLM26 NUREG-1801, as clarified by ISG-04, states "Inspection results are acceptable if there are no visual indications of cracking, separation of seals from walls and components, separation of layers of material, or ruptures or punctures of seals." Palisades inspection acceptance criteria states that no cracks of 1/4" wide or greater are allowed. The acceptance criteria are derived from fire test reports, and are acceptable. No precedent identified to date.	None
Flow Accelerated corrosion Program LR-AMPBD-15-FAC	XLM17	None	None	None	None	None	None	None
Non-EQ Electrical Commodity Condition Monitoring Program LR-AMPBD-17-NONEQELECOM	XLE1, XLE2 XLE3	None	None	None	None	None	None	None
Open Cycle Cooling Water Program LR-AMPBD-19-OCCW	XLM20	None	None	None	None	None	None	None

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Overhead Load Handling Systems Inspection Program LR-AMPBD-20-OVHDLOAD	XLM23	None	None	NUREG-1801, section XLM23, Parameters Monitored/Inspected section, states, "The number and magnitude of lifts made by the crane are also reviewed." Palisades does not track the number and magnitude of all lifts made by cranes. Administrative controls are implemented to ensure that only allowable loads are handled and fatigue failure of structural elements is not expected. A time-limited aging analysis report concludes that, at the current service level, there are no fatigue concerns for Containment polar crane and the Spent Fuel Pool crane as both the Containment polar and Spent Fuel Pool crane can not realistically approach the 20,000 to 100,000 rated lifts assumed for their design evaluation during the 60 year extended operating period (Ref. 8.25). Frequent inspections of cranes for indications of functional failures are conducted. However, Palisades does track the number and magnitude of lifts made that exceed the rated capacity of the cranes (Ref. 8.6). These are called "engineered lifts", follow the requirements of ANSI B30.2, and are generally only used for the polar crane (L-1) lifting the reactor head with lead shielding. These lifts are numerically restricted, and evaluated by engineering analysis. This exception is generally in accordance with the position taken by the Dresden and Quad Cities Nuclear Power Stations in their License Renewal Application, and subsequently approved by the Nuclear Regulatory Commission in the associated Safety Evaluation Report (Ref. 8.26).	None	None	None	None	None
One-Time Inspection Program LR-AMPBD-21-ONETIME	XLM32, XLM33, XLM29 (partial)	None	None	None	XLM32 Section XLM32.4 of NUREG-1801 requires plant-specific destructive examination of replaced piping due to plant modifications, or NDE that will detect cracking on the inside surfaces of the small bore piping. The current state of technology does not provide for an effective, reliable method of performing volumetric examinations of small-bore socket welds. The combination of these one-time volumetric examinations of a 10% sample of Class 1 butt welds, and the 100% VT-2 examinations of all Class 1 and 2 HSS socket welds 2" NPS and under each refueling outage meets the intent of NUREG-1800 and -1801 to provide aging management for small-bore class 1 piping. This is generally in accordance with the position approved by the NRC for the Dresden/Quad Cities Nuclear Plants in their License Renewal Application and associated Safety Evaluation Report (Ref. 8.22).	None	None	None	
Reactor Vessel Integrity Surveillance Program LR-AMPBD-22-VSLINTEGRITY	XLM31	None	None	None	None	None	None	None	

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Reactor Vessel Internals Inspection Program LR-AMPBD-23-VSLINTERNALS	XLM16	1. None	None	None	None	None	None	None
Steam Generator Tube Integrity Program LR-AMPBD-24-SGINTEGRITY	XLM19	None	None	None	None	None	None	None
Structures Monitoring Program LR-AMPBD-25-STRUCTMON	XLS5, XLS6, XLS7	None	None	None	None	None	None	None
System Monitoring Program LR-AMPBD-28-SYSMON	XLM29 (partial)	None	None	None	None	None	None	None
Water Chemistry Program LR-AMPBD-26-CHEMISTRY	XLM2	None	None	None	None	None	None	None

Current AMP consistency rating: Total # of attributes: (23 Programs complete) x (10 Attributes per program) = 230. Total number of exceptions = 10 => (230-10)/230 = 95.6% consistency