

**APPENDIX**

**QUALITY ASSURANCE FOR  
AGING MANAGEMENT PROGRAMS**

This Page Intentionally Left Blank

## QUALITY ASSURANCE FOR AGING MANAGEMENT PROGRAMS

The license renewal applicant must demonstrate that the effects of aging on structures and components subject to an aging management review (AMR) will be adequately managed to ensure that their intended functions will be maintained consistent with the current licensing basis (CLB) of the facility for the period of extended operation. Therefore, those aspects of the AMR process that affect the quality of safety-related structures, systems, and components are subject to the quality assurance (QA) requirements of Appendix B to 10 CFR Part 50. For non-safety-related structures and components subject to an AMR, the existing 10 CFR Part 50, Appendix B, QA program may be used to address the elements of corrective actions, confirmation process, and administrative controls on the following bases:

- Criterion XVI of 10 CFR Part 50, Appendix B, requires that measures be established to ensure that conditions adverse to quality, such as failures, malfunctions, deviations, defective material and equipment, and nonconformances, are promptly identified and corrected. In the case of significant conditions adverse to quality, measures must be implemented to ensure that the cause of the nonconformance is determined and that corrective action is taken to preclude repetition. In addition, the root cause of the significant condition adverse to quality and the corrective action implemented must be documented and reported to appropriate levels of management.
- Because Criterion XVI of 10 CFR Part 50, Appendix B, requires that measures be taken to preclude repetition of significant conditions adverse to quality, follow-up actions must be taken to verify effective implementation of the proposed corrective action. This verification comprises the confirmation process element for aging management programs for license renewal. For example, in managing internal corrosion of piping, a mitigation program (water chemistry) may be used to minimize susceptibility to corrosion. However, it may also be necessary to have a condition monitoring program (ultrasonic inspection) to verify that corrosion is indeed insignificant. When corrective actions are necessary for significant conditions, follow-up activities are to confirm that the corrective actions implemented are effective in preventing recurrence.
- Administrative controls are the provisions associated with organization and management, policies, orders, instructions, procedures, record keeping, and designations of authority and responsibility that are necessary to ensure operation of the facility in a safe manner. 10 CFR 50.34(b)(6)(ii) and 10 CFR 50.36(c)(5) require that nuclear power plant license applicants include in the final safety analysis report information on the managerial and administrative controls to be used to ensure safe operation. 10 CFR 50.34(b)(6)(ii) and 10 CFR 50.36(c)(5) also stipulate that Appendix B to 10 CFR Part 50 sets forth the requirements for these managerial and administrative controls. Accordingly, programs consistent with the requirements of 10 CFR Part 50, Appendix B, also satisfy the administrative controls element necessary for aging management programs (AMPs) for license renewal.

Notwithstanding the suitability of its provisions to address quality-related aspects of the AMR process for license renewal, 10 CFR Part 50, Appendix B, covers only safety-related structures, systems, and components. Therefore, absent a commitment by the applicant to expand the scope of its 10 CFR Part 50, Appendix B, QA program to include non-safety-related structures and components subject to an AMR for license renewal, the AMPs applicable to such structures and components are to provide alternative means to address corrective actions, confirmation process, and administrative controls. Such alternate means would be subject to review by NRC on a case-by-case basis.

This Page Intentionally Left Blank