

Audit and Review Plan for
Plant Aging Management Reviews
and Programs

Point Beach Nuclear Plant
Units 1 and 2

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1 Introduction

By letter (ADAMS Accession Number ML040580023) dated February 25, 2004, Nuclear Management Company (the applicant) submitted to the U.S. Nuclear Regulatory Commission (NRC) its application for renewal of Operating Licenses DPR-24 and DPR-27 for Point Beach Nuclear Plant, Units 1 and 2, respectively. The applicant requested renewal of the operating license for an additional 20 years, in accordance with the criteria of 10 CFR Part 54.

In support of the staff's safety review of the license renewal application (LRA) for Point Beach Nuclear Plant (PBNP), Units 1 and 2, the License Renewal and Environmental Impacts Program, Section B (RLEP-B), will lead a project team between April and September 2004 that will audit and review selected aging management reviews (AMRs) and associated aging management programs (AMPs) developed by the applicant to support the LRA for PBNP 1 and 2. The project team will include both NRC staff and contractor engineers provided by Pacific Northwest National Laboratory, RLEP-B's technical assistance contractor.

This document provides an overview of the generic audit process used by the U.S. Nuclear Regulatory Commission (NRC) in its reviews of owner applications to renew nuclear power plant operating licenses. The audit review process specific to the license renewal application for the Point Beach Nuclear Plant Units 1 and 2 is described in detail in Attachment 1.

The document consists of the following sections and components.

- **Background** – Describes the basis for license renewal, identifies the requirements stated in the Code of Federal Regulations that apply to license renewal, and describes the documents used for the technical basis for reviewing license renewal applications.
- **Objectives** – Describes the objectives of the aging management review and aging management program review.
- **Scope of Audits and Reviews** – Describes the scope of the aging management review and aging management program review.
- **Summary of Information Provided in the Point Beach License Renewal Application** – Provides a description of the information contained in the license renewal application that applies to aging management review and aging management program review.
- **Overview of Audit and Review Process** – Provides a brief summary of the process used by the staff to audit and review the information contained in the application for license renewal that pertains to aging management review and aging management program review. The details of the audit review specific to the Point Beach plant are provided in Attachment 1.
- **Exit Meeting** – Notes the exit meeting to be held with the applicant to discuss results of the audits and reviews.
- **Documentation** – Describes the documentation process associated with the audit and review process for aging management review and aging management program reviews.
- **Attachment 1** – Documents the detailed audit and review plan used to review the license renewal application for Point Beach Units 1 and 2.

- **Attachment 2** – Documents the specific aging management review line items reviewed by the project team.

2 Background

The Atomic Energy Act and NRC regulations limit commercial power reactor licenses to an initial 40 years but also permit such licenses to be renewed. The original 40-year term for reactor licenses was based on economic and antitrust considerations—not on limitations of nuclear technology. Therefore, the NRC has established a license renewal process and clear requirements codified in 10 CFR Part 51 and 10 CFR Part 54; these requirements ensure safe plant operation for extended plant life.

The license renewal process is designed to assess whether a reactor can continue to operate safely during the extended period. The process focuses on reactor systems, structures, and components (SSCs) that could affect safety during the period of extended operation. The specific requirements for license renewal are specified in the Code of Federal Regulations Title 10, Energy, Parts 54.4 and 54.21. Guidance for developing applications and reviewing license renewal applications is provided in the following documents.

- Title 10 of the Code of Federal Regulations, Part 54 (10 CFR 54), "Requirements for Renewal of Operating Licenses for Nuclear Power Plants"
- NUREG-1800, *Standard Review Plan for Review of License Renewal Application for Nuclear Power Plants* (SRP-LR) (July 2001)
- NUREG-1801, *Generic Aging Lessons Learned (GALL) Report* (July 2001)
- The NRC-issued Regulatory Guide 1.188, *Standard Format and Content for Applications To Renew Nuclear Power Plant Operating Licenses.*"

Each of these documents is described below.

10 CFR 54.4 specifies the scope of license renewal as those SSCs

- that are safety-related,
- whose failure could affect safety-related functions, and
- that are relied on to demonstrate compliance with the NRC's regulations for fire protection, environmental qualification (EQ), pressurized thermal shock (PTS), anticipated transients without scram (ATWS), and station blackout (SBO).

An applicant for a renewed license must review all SSCs within the scope of license renewal to identify those structures and components (SCs) subject to an aging management review (AMR). SCs subject to an AMR are those that perform an intended function without moving parts or without a change in configuration or properties and that are not subject to replacement based on qualified life or specified time period.

10 CFR 54.21(a)(3), states that an applicant for a renewed license must demonstrate that the

effects of aging will be managed in such a way that the intended function or functions of those SCs will be maintained, consistent with the current licensing basis for the period of extended operation. 10 CFR 54.21(d) requires that the applicant submit a supplement to the final safety analysis report (FSAR) that contains a summary description of the programs and activities for managing the effects of aging.

NUREG-1800, *Standard Review Plan for the Review of License Renewal Applications for Nuclear Power Plants* (SLR-LR), provides guidance to the NRC staff for reviewing applications for license renewal. The principal purposes of the SRP-LR are to ensure quality and uniformity of staff reviews and to present a well-defined base from which to evaluate applicant programs and activities for the period of extended operation.

The GALL Report, NUREG-1801, represents an evaluation that documents which generic existing programs should be augmented for license renewal and which generic programs adequately manage aging effects without change. The GALL Report builds on a December 1996 report, NUREG/CR-6490, *Nuclear Power Plant Generic Aging Lessons Learned (GALL)*, which is a systematic compilation of plant aging information. The GALL Report describes the following aspects of aging that relate to license renewal.

- Identifies systems, structures, and components subject to an aging management review (AMR).
- Identifies component materials and the environments to which the components are exposed.
- Identifies the aging effects associated with the materials and environments.
- Identifies acceptable aging management programs (AMPs) that are credited with managing the aging effects.
- Identifies recommendations for further applicant evaluations of aging effects and their management for certain component types.

The GALL report is a technical basis document for the SRP-LR. The GALL report should be treated in the same manner as an approved topical report that is applicable generically.

The NRC-issued Regulatory Guide 1.188, *Standard Format and Content for Applications to Renew Nuclear Power Plant Operating Licenses*, was developed to provide a uniform format and content acceptable to the staff for structuring and presenting the information to be compiled and submitted in an application for renewal of a nuclear power plant operating license.

3 Objectives

The objective of the audit and review process described in this document is to verify compliance with 10 CFR 54.21(a)(3). Therefore, the audit and review process helps ensure that for each structure and component [within the scope of license renewal], the effects of aging will be adequately managed so that the intended function(s) will be maintained consistent with the current licensing basis for the period of extended operation.

The objectives of the detailed plant-specific audit and review plan are provided in Attachment 1 of this plan, pages 1-2 and 1-3.

4 Scope of Audits and Reviews

The AMRs and associated AMPs to be reviewed by the project team are documented in Attachment 1. The scope of the AMP and AMR reviews is described below.

4.1 Scope of AMP Reviews

AMPs reviewed by the audit team may be described in terms of three general categories.

- AMPs that are consistent with the GALL Report
- AMPs described as consistent with the GALL Report that contained some deviations from the GALL Report. These deviations were of two types.
 - exceptions to the GALL Report. Exceptions are specified GALL criteria that the applicant does not intend to meet or to implement.
 - enhancements to the GALL Report. Enhancements are revisions or additions to plant procedures or program activities that the applicant will implement prior to the period of extended operation. Enhancements may expand, but not reduce, the scope of an AMP.
- plant-specific AMPs that are not addressed in the GALL Report.

The AMPs consistent with the GALL Report are reviewed by the project team to ensure that each AMP meets the requirements specified in the GALL Report.

For the AMPs that deviate from the GALL Report and plant-specific AMPs, the team reviews those that the applicant justifies on the basis of past precedents approved by the staff in the license renewal safety evaluation reports (SERS) for other plants. (See Section 6.3 of this document for information on how the project team treats precedent information.)

4.2 Scope of AMR Reviews

In general, the AMRs reviewed by the project team are the tables in Chapter 3 of the applicant license renewal application. The AMRs either will be consistent with the GALL Report, as identified by Notes in the LRA, or justified by the applicant on the basis of an NRC-approved precedent.

5 Summary of Information Provided in the Point Beach License Renewal Application

The standard LRA format is provided in NEI 95-10, *Industry Guideline for Implementing the Requirements of 10 CFR Part 54 – The License Renewal Rule*, Revision 3 (April 2001). In this document, Section 3 provides the results of the aging management review for structures and components that the applicant identified as being subject to aging management review.

Appendix B of the LRA provides a description of the aging management programs that the applicant proposes to use for managing the aging effects identified in the aging management reviews.

5.1 LRA Tables

The AMR results information in Section 3 is presented in two table types.

- Table 3.x.1, in which “3” indicates the LRA section number; “x” indicates the subsection number from NUREG-1801, Volume 1; and “1” indicates that this is the first table type in Section 3. For example, in the Reactor Coolant System subsection, this table would be 3.1.1. In the Engineered Safety Features subsection, this table would be 3.2.1, and so on. For ease of discussion, this table will hereafter be referred to in this section as Table 1.
- Table 3.x.2-y, in which “3” indicates the LRA section number, “x” indicates the subsection number from NUREG-1801, Volume 1; “2” indicates that this is the second table type in Section 3; and “y” indicates the system table number. For example, for the Reactor Vessel, within the Reactor Coolant System subsection, this table would be 3.1.2-1, and for the Reactor Vessel Internals, it would be Table 3.1.2-2. For the Containment Spray System, within the Engineered Safety Features subsection, this table would be 3.2.2-1. For the next system within the ESF subsection, it would be Table 3.2.2-2. For ease of discussion, this table will hereafter be referred to in this section as Table 2.

X	Definition
1	Reactor Coolant System
2	Engineered Safety Features Systems
3	Auxiliary Systems
4	Steam and Power Conversion Systems
5	Structures and Component Supports
6	Electrical and Instrumentation and Controls

The applicant compared AMR results with information set forth in the tables of the GALL Report and provided the results of its comparisons in two table types that correlate with the two table types described above.

5.1.1 LRA Table 1

LRA Table 1 provides a summary comparison of how the AMR results align with the corresponding table of Volume 1 of the GALL Report. These tables are essentially the same as Tables 1 through 6 of the GALL Report, except that the "Type" column is replaced by an "Item Number" column, and the "Item Number in GALL" column is replaced by a "Discussion" column. The "Item Number" column provides a means to cross-reference from LRA Table 2 to LRA Table 1. The “Discussion” column will include further information. The following are examples of information that might be contained within the “Discussion” column.

- any "Further Evaluation Recommended" information or reference to the location of that information
- the name of a plant-specific program being used
- exceptions to the GALL Report assumptions
- a discussion of how the line item is consistent with the corresponding line item in the GALL Report, when it may not be intuitively obvious
- a discussion of how the line item differs from the corresponding line item in the GALL Report, when it may appear to be consistent.

Information in the table columns described below is taken directly from Volume 1 of the GALL Report—component, aging effect/mechanism, AMPs, further evaluation recommended. The Discussion column explains, in summary, how the evaluations and programs align with Volume 1 of the GALL Report.

5.1.2 LRA Table 2

LRA Table 2 provides the detailed results of the AMRs for those SCs that are subject to an aging management review. There is a Table 2 for each of the AMR systems within a GALL Report system group. For example, the engineered safety features system group contains tables specific to emergency core cooling, containment spray, containment cooling, containment penetrations, and hydrogen control. The LRA Table 2 consists of the following nine columns.

- **Component Type** – Column 1 identifies the component types that are subject to an AMR. The component types are listed in alphabetical order. In the structural tables, component types are subgrouped by material.
- **Intended Function** – Column 2 identifies the license renewal intended functions for the listed component types. Definitions and abbreviations of intended functions are listed in Table 2.0-1 in Section 2 of the LRA.
- **Material** – Column 3 lists the specific materials of construction for the component type being evaluated.
- **Environment** – Column 4 lists the environment to which the component types are exposed. Internal and external service environments are indicated. A description of these environments is provided in Table 3.0-1, Table 3.0-2, and Table 3.0-3 for mechanical, structural, and electrical components, respectively.
- **Aging Effect Requiring Management** – Column 5 lists the aging effects identified as requiring management for the material and environment combinations of each component type.
- **Aging Management Programs** – Column 6 lists the programs used to manage the aging effects requiring management.

- **GALL Report (Vol. 2) Item** – Each combination of the following factors listed in Table 2 is compared to the GALL Report to identify consistencies: component type, material, environment, aging effect requiring management, and aging management program. Column 7 documents identified consistencies by noting the appropriate GALL Report item number. If there is no corresponding item number in the GALL Report for a particular combination of factors, column 7 is left blank.
- **Table 1 Item** – Each combination of the following that has an identified GALL Report item number also has a Table 1 line item reference number—component type, material, environment, aging effect requiring management, and aging management program. Column 8 lists the corresponding line item from Table 1. If there is no corresponding item in the GALL Report (Volume 1), column 8 is left blank.
- **Notes** – Column 9 contains notes that are used to describe the degree of consistency with the line items the GALL Report. Notes that use letter designations are standard notes based on the letter from A. Nelson, NEI, to P. T. Kuo, NRC, “U.S. Nuclear Industry’s Proposed Standard License Renewal Application Format Package, Request NRC Concurrence,” dated January 24, 2003 (ML030290201). (Note that the staff concurred in the format of the standardized format for license renewal applications by letter dated April 7, 2003, from P.T. Kuo, NRC, to A. Nelson, NEI (ML030990052).) Notes that use numbers are plant specific notes that apply only to Point Beach.

Table 2 contains the AMR results and indicates whether the results correspond to line items in Volume 2 of the GALL Report. This table provides the following information.

- component type
- component intended function
- material
- environment
- aging effect requiring management
- AMP credited.

Correlations between the combination in Table 2 and a combination for a line item in Volume 2 of the GALL Report are identified by the GALL Report item number in column 7. If column 7 is blank, the applicant did not identify a corresponding combination in the GALL Report. If the applicant identified a GALL Report line item, the next column provides a reference to a Table 1 row number. This reference corresponds to the roll-up of tables from the GALL Report, Volume 2, to the tables in the GALL Report, Volume 1. Many of the GALL Report evaluations refer to plant-specific programs. In these cases, the applicant considers the evaluation to be consistent with the GALL Report if the other elements are consistent. Any appropriate AMP is considered to be a match to the GALL program for line items referring to a plant-specific program.

6 Overview of Audit and Review Process

The audit and review process to be followed by the project team is summarized below.

6.1 Review and Audit of Aging Management Programs

For the AMPs declared to be consistent with the AMPs in the GALL Report, the project team will

verify consistency. The project team reviews the AMP descriptions and compares 7 of the 10 program elements for those AMPs (as defined in Branch Technical Position RLSB-1 of SRP-LR, Appendix A) to the corresponding program elements for the GALL AMPs. Table 1 shows the 10 program elements from the SRP-LR. The project team does not review program elements 7 “Corrective Action,” 8 “Confirmation Process,” or 9 “Administrative Controls.” These elements are reviewed by other NRC staff.

For each AMP that has one or more of the deviations defined in Section 4 of this document—exception or enhancement—the project team will review each deviation to determine whether it was acceptable and whether the AMP, as modified by the applicant, would adequately manage the aging effects for which it is credited. In some cases, the project team may identify differences between the GALL AMPs credited by the applicant and AMPs that the applicant did not identify. In these cases, the team will review the difference to determine whether or not it is acceptable and whether or not the AMP, as modified by the difference, would adequately manage the aging effects for which it is credited.

For those AMPs that are not included in the GALL Report— that is, plant-specific AMPs—the project team reviews the AMP against the seven program elements as defined in Appendix A of the SRP-LR that are within its review scope. On the basis of its reviews, the project team determines whether the AMPs would manage the aging effects for which they are credited.

6.2 Review and Audit of AMRs

The AMRs in the GALL Report fall into two broad categories.

- those that the GALL Report concludes are adequate to manage aging of the components referenced in the GALL Report
- those for which the GALL Report concludes that aging management is adequate but for which further evaluation is recommended for certain aspects of the aging management process.

For its AMR reviews, the project team verifies that the AMRs reported by the applicant to be consistent with the GALL Report are consistent with the GALL Report and verifies that the plant-specific AMRs reported to be justified on the bases of a previously approved precedent are technically acceptable and applicable. For component groups evaluated in the GALL Report for which the applicant claims consistency with the GALL Report and for which the GALL Report recommends further evaluation, the project team reviews the applicant’s evaluation to determine whether it adequately addresses the issues for which the GALL Report recommended further evaluation.

Table 1. AMP Elements To Be Reviewed by the Project Team		
1	Scope of program	Scope of program should include the specific structures and components subject to an AMR for license renewal.
2	Preventive actions	Preventive actions should prevent or mitigate aging degradation.
3	Parameters monitored or inspected	Parameters monitored or inspected should be linked to the degradation of the particular structure or component intended functions.
4	Detection of aging effects	Detection of aging effects should occur before there is loss of structure or component intended functions. This includes aspects such as method or technique (i.e., visual, volumetric, surface inspection), frequency, sample size, data collection and timing of new/one-time inspections to ensure timely detection of aging effects.
5	Monitoring and trending	Monitoring and trending should provide predictability of the extent of degradation and timely corrective or mitigative actions.
6	Acceptance criteria	Acceptance criteria, against which the need for corrective action will be evaluated, should ensure that the structure or component intended functions are maintained under all current licensing basis design conditions during the period of extended operation.
7	Corrective actions (Audited by NRC Division of Inspection Program Management)	Corrective actions, including root cause determination and prevention of recurrence, should be timely.
8	Confirmation process (Audited by NRC Division of Inspection Program Management)	Confirmation process should ensure that preventive actions are adequate and that appropriate corrective actions have been completed and are effective.
9	Administrative controls (Audited by NRC Division of Inspection Program Management)	Administrative controls should provide a formal review and approval process.
10	Operating experience	Operating experience of the aging management program, including past corrective actions resulting in program enhancements or additional programs, should provide objective evidence to support the conclusion that the effects of aging will be managed adequately so that the structure and component intended functions will be maintained during the period of extended operation.

6.3 NRC-Approved Precedents

To help facilitate the staff review of its LRA, the applicant referenced NRC-approved precedents to demonstrate that its non-GALL programs correspond to programs that the staff had approved for other plants during its review of previous applications for license renewal. When an applicant elects to provide precedent information, the team determines whether the material presented in the precedent is applicable to the applicant's facility, determines whether the plant program is bounded by the conditions for which the precedent was evaluated and approved, and verifies that the plant program contains the program elements (or attributes) of the referenced precedent. In general, if the project team determines that these conditions are satisfied, it will use the precedent to frame and focus its review of the applicant's program.

It is important to note that precedent information is not a part of the license renewal application; it is supplementary information voluntarily provided by the applicant as a reviewer's aid. The existence of a precedent, in and of itself, is not a sufficient basis to accept the applicant's program. Rather, the precedent facilitates the review of the substance of the matters described in the applicant's program. As such, in its documentation of its reviews of programs that are based on precedents, the precedent information is typically implicit in the evaluation rather than explicit. If the project team determines that a precedent identified by the applicant is not applicable to the particular plant program for which it is credited, it reviews the program in the traditional manner—that is, as described in the SRP-LR—without consideration of the precedent information.

6.4 UFSAR Supplement

Consistent with the SRP-LR, for the AMRs and associated AMPs that it reviews, the project team also reviews the UFSAR supplement that summarizes the applicant's programs and activities for managing the effects of aging for the period of extended operation.

6.5 Documentation and Documents Reviewed

In performing its work, the project team will rely heavily on the LRA, the SRP-LR, and the GALL Report. The project team also will examine the applicant's precedent review documents and AMP basis documents (a catalog of the documentation used by the applicant to develop or justify its AMPs), and other applicant documents, including selected implementing procedures, to verify that the applicant's activities and programs will adequately manage the effects of aging on structures and components.

7 Exit Meeting

The project team will hold a public exit meeting with the applicant to discuss the results of its audits and reviews of the PBNP AMPs and AMRs.

8 Documentation

The project team will document its review findings in a detailed audit and review report. This audit and review report is then used as a basis for the project team to develop a safety evaluation report (SER) that is used in part as the basis for granting license renewal.

The specific ADAMS accession number (ML number) for the applicant's Audit and Review Report and SER may be obtained in the future at the NRC website link, <http://www.nrc.gov/reactors/operating/licensing/renewal/applications.html>.

Attachment 1

Point Beach Plant-Specific Audit Plan

Attachment 1 Point Beach Plant-Specific Audit Plan

1 Introduction

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In support of the staff's safety review of the license renewal application (LRA) for Point Beach Nuclear Plant (PBNP), Units 1 and 2, the License Renewal and Environmental Impacts Program, Section B (RLEP-B), will lead a project team between April and September 2004 that will audit and review selected aging management reviews (AMRs) and associated aging management programs (AMPs) developed by the applicant to support the PBNP-1 and 2 LRA. The project team will include both NRC staff and contractor engineers provided by Pacific Northwest National Laboratory (PNNL), RLEP-B's technical assistance contractor. The schedule for the PBNP audit and reviews is provided in Appendix A to this attachment. A list of the project team members and other NRC staff and PNNL personnel who will support the project team's review is provided in Appendix B.

The project team's work will be performed in accordance with the requirements of Title 10 of the Code of Federal Regulations, Part 54 (10 CFR 54), "Requirements for Renewal of Operating Licenses for Nuclear Power Plants;" the guidance provided in NUREG-1800, *Standard Review Plan for Review of License Renewal Application for Nuclear Power Plants (SRP-LR)* (July 2001); the guidance provided in NUREG-1801, *Generic Aging Lessons Learned (GALL) Report* (July 2001); and this audit and review plan.

For its assigned scope of work, the project team will verify that the applicant's aging management activities and programs will adequately manage the effects of aging on structures and components, so that their intended functions will be maintained consistent with the PBNP-1 and 2 current licensing basis (CLB) for the period of extended operation. The project team will perform audits and reviews of selected AMRs and AMPs to verify consistency with the license renewal requirements and guidance documents mentioned above. The project team will also verify whether other AMPs and AMRs that the applicant has indicated are consistent with programs and reviews previously approved by the NRC staff but that have not yet been included in the GALL Report.

This attachment describes the project team's audit and review plan. The team will perform its work at NRC Headquarters, Rockville, Maryland; at PNNL offices in Richland, Washington; and at the applicant's offices at the Point Beach Nuclear Plant site near Two Rivers, Wisconsin. The project team site visits are planned during April 26 through 30, 2004, June 7 through 11, 2004, and July 12 through 15, 2004. The team plans to conduct a public exit meeting at the applicant's Manitowoc, Wisconsin, offices on July 15, 2004. The dates are tentative.

2 Scope

- a. The project team will perform audits and technical reviews of the license renewal applicant's AMPs and AMRs as assigned in Attachment 2. The purpose of these reviews and audits is to verify that the effects of aging on structures and components, within the scope of the team's responsibilities, will be adequately managed so that their intended functions will be maintained consistent with the plant's CLB for the period of extended operation as required by 10 CFR 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants." Generally, the project team will
 - i. Review and audit assigned AMPs in accordance with this plan. The assigned AMPs are generally those that are
 - (1) consistent with the GALL Report,
 - (2) consistent with the GALL Report with certain exceptions identified by the applicant or the project team, or
 - (3) plant-specific, where there is an NRC-approved precedent.
 - ii. Review and audit assigned AMRs in accordance with this plan. These AMRs generally consist of those line items that are
 - (1) consistent with the GALL Report,
 - (2) consistent with the GALL Report with exceptions, or
 - (3) based on an NRC-approved precedent.
- b. An AMP consists of the 10 attributes as defined in Appendix A, "Aging Management Review," of Branch Technical Position RLSB-1 of the SRP-LR. This document directs the audit or technical review of elements 1 through 6 and element 10. Elements 7, 8, and 9, as noted in Table 1-1, are reviewed by NRR Division of Inspection Project Management (DIPM).

3 Objectives Specific to Point Beach License Renewal Application

The objectives of the audit and review specific to Point Beach are

- a. to verify that the AMPs reported by the applicant to be consistent with the GALL Report are consistent with the criteria of the GALL Report
- b. to verify, for AMPs reported to be consistent with the GALL Report with exceptions, that the AMP is consistent and the exceptions are acceptable with an adequate technical basis or an NRC-approved precedent
- c. to verify, for AMPs reported to be consistent with the GALL Report with enhancements, that the AMPs are consistent and that the enhancements are
 - i. consistent with the GALL Report or are acceptable based on a technical review
 - ii. identified as regulatory commitments (e.g., in the Updated Final Safety Analysis Report (UFSAR), in Appendix A of the LRA or in a controlled commitment tracking system).

- d. to perform technical reviews of plant-specific AMPs where the applicant has stated that the AMP is equivalent to, or enveloped by, another AMP that has been previously approved by the NRC. The NRC-approved precedent establishes the limits of what the NRC staff has previously found acceptable but is not in its own right sufficient to determine that the AMP will satisfy 10 CFR Part 54. A technical review and documented basis are required for this review.
- e. to verify that the applicant's AMRs reported to be consistent with the GALL Report are consistent with the criteria of the GALL Report or can be accepted based on an NRC-approved precedent
- f. to evaluate, for the AMR review of Table 3.X.1, that the applicant's AMRs have addressed those line items where "further evaluation" is recommended in accordance with the SRP-LR.

4 Pre-Audit Planning and Activities

- a. Define sequence of activities that shows key milestone dates and activities that is consistent with the overall completion schedule.
 - i. Key milestones include, as a minimum
 - (1) receipt of the LRA
 - (2) receipt of the scope of work (AMPs and AMRs to be audited and reviewed) for the project team from the NRC contract technical monitor (TM) or NRC team leader
 - (3) preparation and issuance of the audit and review plan
 - (4) scheduling of site visits to review AMPs and resolve audit and review questions and issues
 - (5) scheduling of in-office periods and site visits to review AMRs
 - (6) preparation of AMP and AMR questions and interim audit report inputs
 - (7) preparation of requests for additional information (RAIs)
 - (8) preparation and issuing of draft audit report and draft safety evaluation report (SER) input.
 - (9) preparation, review, and issuing of final audit report and SER input.
 - ii. Establish site visit schedules based on discussions between the NRC project team leader and the NRC license renewal project manager to obtain agreement from the applicant.
 - iii. Appendix A provides a schedule of key milestone dates developed to support the milestone activities listed above.
- b. In conjunction with the NRC team leader, make project team member work assignments for the AMPs and AMRs.
 - i. Decide which AMPs and AMRs will be reviewed or audited by contractor personnel and which will be reviewed and audited by NRC staff.

- ii. Develop assignment lists indicating which project team member will be reviewing which AMPs and AMRs. The assignments are shown in Appendix C and Appendix D, respectively.
- c. Provide training, as appropriate, and prepare project team members. The training and preparation will include
 - i. a description of the audit and review process
 - ii. an overview of documentation that is audited and reviewed, as well as audit-related documentation. This documentation includes
 - (1) GALL Report
 - (2) SRP-LR
 - (3) LRA AMPs and tabular information
 - (4) LRA AMRs and tabular information
 - (5) GALL Report AMPs and tables
 - (6) Interim Staff Guidance (ISG)
 - (7) license renewal audit reports, SERs and RAIs from other plants, as appropriate
 - (8) the applicant's UFSAR
 - iii. the protocol for interfacing with the applicant
 - iv. administrative issues, such as travel, control of documentation, work hours
 - v. input requirements for audit reports, questions to the applicant, RAIs, and SER inputs
 - vi. interface with NRC Division of Engineering (DE) technical reviewers
 - vii. the lessons learned from previous audits
- d. Review audit-related documentation to become familiar with the process and prepare for the on-site and in-office audits and reviews.
- e. Provide a methodology for identifying attribute elements to be audited for assigned AMPs and AMRs.

5 Conducting Audits and Reviews

- a. Assignment of AMPs to be Audited and Reviewed
 - i. Two types of AMPs exist—those that the applicant claims are consistent with the GALL Report and those that are plant-specific. Audits and reviews of both types of AMPs are discussed in the following sections.
 - ii. The NRC team leader will approve all work assignments assigned to the individual project team members. After the audit plan is issued, the team leader may reassign AMPs, if a reassignment is determined to be necessary.

- b. Scope of AMP Elements to be Audited and Reviewed
 - i. Appendix A of the SRP-LR and Chapter XI of the GALL Report defines 10 elements that are to be reviewed for consistency. These elements are summarized in Table 1-1. The project team will review 7 of these 10 elements (Elements 1 through 6 and Element 10). The project team will **not** audit the following elements.
 - (1) Element 7, Corrective Actions
 - (2) Element 8, Confirmation Process
 - (3) Element 9, Administrative Controls.
 - ii. The scope of elements audited or reviewed is the same for AMPs consistent with the GALL Report and for plant-specific AMPs.
- c. AMP Audits
 - i. Audits of AMPs Consistent with the GALL Report
 - (1) The AMP audit process flowchart (Figure 1-1) shows the activities and decisions used to review and audit each AMP that the applicant claims is consistent with the GALL Report.
 - (2) Pre-audit preparation is an important step and includes the following activities.
 - (a) For the LRA AMP being reviewed that is cited as being consistent with the GALL Report, identify the corresponding AMPs in the GALL Report.
 - (b) Review the associated GALL Report AMPs and identify the criteria of the program elements that are to be audited.
 - (c) Identify which or what type of documents will be necessary to perform the audit. These may include, but are not limited to, the following.
 - (i) LRA
 - (ii) SERs for similar LRAs
 - (iii) SRP-LR
 - (iv) GALL Report
 - (v) implementation procedures
 - (vi) operating experience (plant-specific and industry)
 - (3) AMP Audit Worksheets
 - (a) A worksheet for documenting the reviews of AMPs consistent with GALL Report AMPs is provided in Appendix E.
 - (4) Audit
 - (a) The audit requires confirmation that the seven audit LRA AMP elements are consistent with the corresponding seven elements of the GALL Report AMP. This is achieved by answering the following questions and then following the assessment process shown in Figure 1-1.
 - (i) Did the applicant identify any exceptions to the GALL Report AMPs?
 - (ii) Is the attribute consistent with the GALL Report AMP?
 - (b) If either of the above questions results in the identification of an exception or a difference, the reviewer can accept the exception or difference as long as a technical basis exists that justifies its acceptance.
 - (c) If an acceptable basis exists for an exception or difference to the GALL Report AMP, the reviewer will document it in the audit report and the SER.
 - (d) If it is necessary to ask the applicant a question to clarify the basis for accepting the element, an exception or difference to the GALL Report AMP, the logic process shown in Figure 1-1 should be used.
 - (e) If it is necessary for the applicant's response to be docketed as a basis for

accepting the exception or difference, the applicant may voluntarily docket the response as an amendment to the LRA or the NRC may issue an RAI.

ii. Reviews of Plant-Specific AMPs

- (1) The review process flowchart (Figure 1-2) shows the activities and decisions used to audit each plant-specific AMP.
- (2) Pre-review preparation is an important step and includes the following activities.
 - (a) Review Section A.1.2.3 of the SRP-LR and identify those element criteria that will be reviewed in conjunction with each of the seven elements.
 - (b) Identify which or what type of documents will be necessary to perform the audit. This may include, but are not limited to the following.
 - (i) LRA
 - (ii) SER for similar LRAs
 - (iii) applicant implementation documents
 - (iv) operating experience (plant-specific and industry)
- (3) AMP Review Worksheets
 - (a) A worksheet for documenting the reviews of plant-specific AMPs is provided in Appendix F.
- (4) Review
 - (a) The review requires confirmation that the seven LRA AMP elements are consistent with the corresponding seven elements of Section A.1.2.3 of the SRP-LR. If this review results in the identification of an exception or a difference, the reviewer can accept the exception or difference as long as a technical basis is provided to justify its acceptability.
 - (b) If an acceptable basis exists for the difference from Section A.1.2.3 of the SRP-LR, document it in the audit and review report and SER input.
 - (c) If it is necessary to ask the applicant a question to clarify the basis for accepting the AMP element or a difference from Section A.1.2.3 of the SRP-LR, the logic process shown in Figure 1-2 should be used.
 - (d) If it is necessary for the applicant's response to be docketed as a basis for accepting the AMP or a difference, the applicant may voluntarily docket the response as an amendment to the LRA or the NRC may issue an RAI.

d. Audits and Reviews of AMRs

i. Assignment of AMRs to be Audited or Reviewed

- (1) Two types of AMRs exist; those that the applicant claims are consistent with the GALL Report and those that are plant specific. Audit and review of both types of AMRs are discussed below. In general, the project team will only review AMRs that are consistent with the GALL Report or that are based on an NRC-approved precedent identified by the applicant.
- (2) Appendix D and Attachment 2 identify the AMRs assigned to this project team and the individual team member responsible for each AMR.

ii. Review of AMRs Consistent with the GALL Report

- (1) The review process in Figure 1-3 shows the activities and decisions used to review each AMR that the applicant claims is consistent with the GALL Report.
- (2) Pre-audit preparation is an important step and includes, as a minimum, the following activities.
 - (a) For the LRA AMR being reviewed that is cited as being consistent with the GALL Report, identify the corresponding AMR in the GALL Report.

- (b) Review the associated GALL Report AMRs and identify those attribute sub-elements that will be audited in conjunction with each of the seven elements.
- (c) Identify which or what type of documents will be necessary to perform the audit. This may include, but are not limited to the following.
 - (i) LRA
 - (ii) SER for similar LRAs
 - (iii) SRP-LR
 - (iii) GALL Report
 - (iv) applicant implementation documents
 - (v) operating experience (plant-specific and industry)
- (3) AMR Audit Worksheets
 - (a) A worksheet for documenting the reviews of AMRs is provided in Appendix G.
- (4) Reviews of AMRs Consistent with the GALL Report
 - (a) Those AMRs that are identified by the applicant as consistent with the GALL Report.
 - (i) Each AMR line item is coded with a letter which represents a standard note designations based on a letter from A. Nelson, NEI, to P. T. Kuo, NRC, "U.S. Nuclear Industry's Proposed Standard License Renewal Application Format Package, Request NRC Concurrence," dated January 24, 2003 (ML030290201). (Note that the staff concurred in the format of the standardized format for license renewal applications by letter dated April 7, 2003, from P.T. Kuo, NRC, to A. Nelson, NEI (ML030990052).) Notes that use numeric designators are specific to Point Beach Units 1 and 2. The note codes A through E are classified as "consistent with the GALL Report," and are to be reviewed in accordance with the guidance contained in section 5.d.ii(4) of this plan.
 - (ii) The review process flowchart (Figure 1-3) shows the activities and decisions used to review the AMRs classified as consistent with the GALL Report.
 - (iii) The AMR review requires confirmation that the regulatory criteria of 10 CFR 54.21(a)(3) is satisfied. This criterion states that "For each structure and component identified in paragraph (a)(1) of this section, demonstrate that the effects of aging will be adequately managed so that the intended function(s) will be maintained consistent with the CLB for the period of extended operation."
 - (b) AMR Audit
 - (i) For each assigned AMR line item, perform the review associated with the note code letter (A through E) assigned to the specific AMR line item being reviewed.
 - 1) Assess whether the AMR is consistent with the GALL Report for the elements associated with its note code letter.
 - a) If not, perform the action described in Step 5.d.ii(4)(b)(vi).
 - (ii) If Note A, if the applicant uses a plant-specific AMP¹, assess whether the component is within the scope of the LRA AMP cited.
 - 1) If it is, proceed with the action described in **Step 5.d.ii(4)(b)(vi)**.
 - (iii) If Note C or D applies, determine whether component type is acceptable

¹ Some GALL AMRs reference the use of a plant-specific AMP. In such cases, the AMR audit requires the project team reviewer to confirm that the plant-specific AMP is appropriate to manage the aging effects during the period of extended operation.

for the material, environment and aging effect.

- 1) If Note D applies, review LRA exceptions and discuss in the audit report
- 2) If not, perform the action described in Step 5.d.ii(4)(b)(vi).
- (iv) If Note E applies, review the AMP audit report findings, to determine whether the scope of an alternate AMP envelopes the AMR line item being reviewed and satisfies 10 CFR 54.21(a)(3).
 - 1) If not, perform the action described in Step 5.d.ii(4)(b)(vi).
- (v) Review the corresponding LRA Table 3.X.1 and referenced LRA Section 3.X.2-Y.
 - 1) Determine whether the "Further Recommended" comparison is enveloped by Section 3.X.2.2.Y of the SRP-LR. If not, proceed with the action cited in Step 5.d.ii(4)(b)(vi) of this plan.
 - 2) If the LRA section does not meet the acceptance criteria of Appendix B to the GALL Report, proceed with the action cited in Step 5.d.ii(4)(b)(vi).
- (vi) If a difference is identified, during the review, prepare a question for the applicant to obtain clarification. If it is necessary to ask the applicant a question to clarify the basis for accepting the AMR, the logic process shown in Figure 1-4 should be used.
 - 1) Review the applicant's response. If it appears acceptable, reinitiate the audit at Step 5.d.ii(4)(b).
 - 2) If an unacceptable response is received, prepare an additional question to obtain the necessary information.
 - 3) If the auditor/reviewer does not believe that an acceptable response is forthcoming, notify the team leader of the situation and prepare a draft RAI.
- (vii) If it is necessary for the applicant's response to be docketed as a basis for accepting the exception or difference, the applicant may voluntarily docket the response or the NRC may issue an RAI.

iii. Performance of AMR Audits Using NRC-Approved Precedent

- (1) The audit process flowchart (Figure 1-4) shows the activities and decisions used to review each assigned AMR that the applicant has identified an NRC-approved precedent. (Note: Applicant-identified NRC-approved precedents are to be used only as an aid for performing AMR audits. The audit conclusions will be based on the technical basis of the AMR. It is not acceptable to simply cite the NRC-approved precedent as its basis).
- (2) Prior to the audit, identify which or what type of documents will be necessary to perform the audit. This may include, but are not limited to the following.
 - (a) LRA
 - (b) SERs for similar LRAs
 - (c) The GALL Report
 - (d) Applicant implementation documents
 - (e) Operating experience (plant-specific and industry)

- (3) AMR Audit Performance
 - (a) The AMR audit requires conformation that the regulatory requirements of 10 CFR 54.21(a)(3) is satisfied. This criterion states that “For each structure and component identified in paragraph (a)(1) of this section, demonstrate that the effects of aging will be adequately managed so that the intended function(s) will be maintained consistent with the CLB for the period of extended operation.”
 - (b) For AMRs with an NRC-approved precedent, this may be achieved by answering the following questions while following the assessment process shown in Figure 1-4.
 - (i) Is the precedent appropriate for the LRA AMR being reviewed?
 - (ii) Is the NRC-approved precedent sufficiently documented or understood to support a technical adequacy of the LRA AMR being reviewed?
 - (iii) Is the LRA AMR within the bounds of the chosen NRC-approved precedent?
 - (c) If any of these questions results in ‘No’ answer, then additional information is required to make a determination that the AMR is acceptable.
 - (d) If it is necessary to ask the applicant a question to obtain clarification on the basis for accepting the AMR, the logic process shown in Figure 1-4 should be used.
 - (e) If it is necessary for the applicant’s response to be docketed as a basis for accepting the exception or difference, the applicant may voluntarily docket the response or the NRC may issue an RAI.
- (4) AMR Audit Worksheets
 - (a) A worksheet form for documenting the auditor’s reviews of AMRs is provided in Appendix E.

6 Audit and Safety Review Documentation

- a. Scope of Documentation
 - i. Based on the results of the AMP and AMR audits and safety reviews performed in accordance with Section 5 of this plan, the project team will prepare an
 - (1) audit and review report, and
 - (2) safety evaluation report (SER) input
 - ii. Both the audit and review report and the SER input will be delivered to NRC TM.
- b. Documentation Overview
 - i. All activities performed by the project team will be documented in the audit and review report. As necessary, the report information will be repeated or summarized in the SER input.
 - ii. The project team prepares the report as discussed in Section 6.c. of this plan.
 - iii. The project team prepares the SER input as discussed in Section 6.d. of this plan.

- c. Audit and Review Report
 - i. The report is used to document the audits and reviews of the AMPs and the AMRs assigned to the project team.
 - ii. The audit report should include the following sections.
 - (1) Cover page
 - (2) Table of contents
 - (3) Introduction
 - (4) Background
 - (5) Summary of Information in the PBNP License Renewal Application
 - (6) Audit and Review Scope
 - (7) Audit and Review Process
 - (8) Exit Meeting
 - (9) Audit and Review Results
 - (a) AMPs
 - (i) Identify which AMPs were reviewed
 - (ii) Audit and review results
 - (a) Consistent with GALL
 - (b) Plant-specific
 - (b) AMRs
 - (i) State that the project team reviewed the AMRs assigned to it in the audit plan.
 - (ii) Audit and review results
 - (10) Attachments
 - (a) Attachment 1, Acronyms and Initialisms
 - (b) Project Team and Applicant Personnel
 - (c) Elements of an Aging Management Program for License Renewal
 - (d) Audit and Review Open Items
 - (e) List of Documents Reviewed
 - (f) List of Commitments to be Included in Appendix A of the Safety Evaluation Report
 - iii. The following paragraphs define the type of information and level of detail necessary for each of the report sections.
 - (1) Cover page that identifies the
 - (a) Name of the plant and units for which the audits and reviews were performed
 - (b) Docket numbers of the plants addressed in the LRA
 - (c) Organization preparing the report
 - (d) Contract number under which the work was performed
 - (e) Statement that the report was prepared for the License Renewal and Environmental Impact Program in the Division of Regulatory Improvement Programs of the Office of Nuclear Regulation
 - (f) Issue date
 - (2) Table of Contents
 - (3) Introduction
 - (4) Background
 - (5) Summary of Information in License Renewal Application: This section should briefly describe the information in Section 3.0 of the License Renewal Application.
 - (6) Audit and Review Scope: This section should include statements that the
 - (a) Audits and reviews were performed to fulfill the criteria of 10 CFR 54.21(a)(3).

- (b) The audits and reviews were performed in accordance with the guidance contained in
 - (i) the SRP-LR
 - (ii) the GALL Report
- (c) This section also identifies the breadth of the audit performed, stating that the audits and reviews were limited to those AMPs and AMRs assigned to the project team.
 - (i) Include in this section a description of the nominal rules used to make the work assignments.
 - (ii) This section should note that only 7 of the 10 AMP elements were audited by the project team and that the other 3 elements were reviewed by other sections of the NRC staff.
- (7) Audit and Review Process: This section should state that the audits and reviews were performed in accordance with the processes defined in accordance with this plan.
- (8) Exit Meeting: This section should briefly describe the discussion and any key action items that resulted from the exit meeting.
- (9) Audit and Review Results:
 - (a) AMPs and AMRs reviewed: Provide a table documenting AMPs reviewed. State that the audit plan documents which AMRs were reviewed by the project team.
 - (b) RAIs issued: Provide a list of RAIs issued, if any, and a summary of the staff disposition of the applicant's responses, if any.
 - (i) Identify to which AMP or AMR each RAI applies.
 - (ii) The RAI disposition will be further expounded upon in conjunction with the audit and review results in the applicable AMP or AMR discussion.
 - (iii) In general, questions that were discussed with the applicant and resolved during performance of the audit and review should not be listed or discussed in the report.
 - (c) Documents reviewed: Provide a reference to the appendix that lists the documents reviewed in support of the AMP and AMR audits and reviews.
 - (i) In the attached table, indicate which documents were reviewed for each AMP or AMR section.
 - (ii) The table may include both docketed and non-docketed documents.
 - (iii) The table may include both licensee-controlled documents (e.g., calculations and procedures) and other documents (e.g., codes and standards).
 - (iv) Note that with the exception of documents relied on to make regulatory decisions, the non-docketed documents may be available only at the applicant's offices or plant site.
 - (d) AMPs consistent with the GALL Report: Each AMP reviewed by the project team that the applicant identified as being consistent with the GALL Report is to be documented in Section 6.c.iv(d) of this report. Each AMP is to have an individual writeup that documents the following.
 - (i) The LRA AMP name, LRA section number, title, and a description of the LRA AMP scope. A listing of the GALL AMPs to which the LRA AMP is being compared.
 - (ii) A technical basis explaining why any exceptions (identified by the applicant or the project team) or enhancements to the applicant's AMPs are acceptable.
 - (iii) If the applicant need to make a docketed response to amend or

- supplement the LRA so that an acceptable finding could be provided, document the submittal, include the ADAMS accession number, and explain the issue that the submittal resolved and why the submittal resolved the issue.
- (iv) If an RAI was issued concerning the AMP, identify the RAI number and briefly discuss the RAI. State whether the RAI remains open or the applicant response has been accepted. If the response was acceptable, document the basis for its acceptance.
 - (v) A discussion concerning the adequacy of the LRA Appendix C commitment to revise the plants UFSAR. Any enhancement are to be cited or referenced in the Appendix C commitment. This discussion is to be based on the audit performed in Section 5 of this plan.
 - (vi) A review of operating experience used to justify acceptance of the AMP.
 - (vii) A paragraph that provides the basis for concluding that the LRA AMP is consistent with the GALL AMPs.
- (e) AMPs that are plant-specific: Each AMP reviewed by the project team that the applicant identified as being plant-specific is to be documented in Section 6.c.iv(e) of this report. This documentation is to include
- (i) The LRA AMP name, LRA section number, title, and a description of the LRA AMP scope.
 - (ii) The basis for concluding that each of the seven AMP elements reviewed by the team (see Table 1-1) is acceptable.
 - (1) Document the basis for accepting any exceptions or enhancements to the Appendix C elements.
 - (2) If the applicant needed to make a docketed response to amend or supplement the LRA so that an acceptable finding could be provided, document the submittal, include the ADAMS accession number, and explain the issue that the submittal resolved and why the submittal resolved the issue.
 - (3) If an RAI was issued concerning the AMP, identify the RAI number and briefly discuss the RAI. State whether the RAI remains open or the applicant response has been accepted. If the response was acceptable, document the basis for its acceptance.
 - (iii) A review of operating experience used to justify acceptance of the AMP.
 - (iv) A discussion concerning the adequacy of the LRA Appendix C commitment to revise the plants UFSAR. This discussion is to be based on the audit performed in Section 5 of this plan.
 - (v) A paragraph that provides the basis for concluding that the LRA AMP is consistent with the GALL AMPs.
- (f) AMRs consistent with the GALL Report²: The report should include the following.

² Section 6.c.iv(f) provides audit results for all AMRs consistent with the GALL Report, including those AMRs requiring further evaluations. The audits documented in this section address the AMR inputs of component, material, aging effect and AMP. The additional evaluation required by the GALL Report for certain AMRs are documented in section 6.c.iv(g) of this plan. Section 6.c.iv(g) assesses only the additional evaluations, not the AMR inputs of component, material, aging effect, and AMP.

- (i) Identify the LRA section reviewed.
 - (ii) A summary of the type of information provided in the section of the LRA, reviewed, including a listing of the AMPs reviewed for this LRA section.
 - (iii) Identify the LRA Tables 3.X.2-Y documented by this audit writeup.
 - (iv) A summary review of the AMR Notes A through E used to classify the AMR line items used in these Tables.
 - (v) A brief summary of what the project team reviewed to perform the audit, i.e., LRA and applicant basis documents and other implementation documents. Reference the Appendix that lists the details of the documents reviewed.
 - (vi) Basis for accepting any exceptions to GALL AMRs that were identified by the applicant or the project team reviewer.
 - (1) If the applicant needed to make a docketed response to amend or supplement the LRA so that an acceptable finding could be provided, document the submittal, include the ADAMS accession number, and explain the issue that the submittal resolved and why the submittal resolved the issue.
 - (vii) If an RAI was issued concerning the AMP, identify the RAI number and briefly discuss the RAI. State whether the RAI remains open or the applicant response has been accepted. If the response was acceptable, document the basis for its acceptance and identify the applicant submittal that provided the response.
 - (viii) Provide an audit finding that determines whether
 - (1) the applicable aging effects were identified,
 - (2) the appropriate combination of materials and environments were defined, and
 - (3) acceptable aging management programs were specified.
 - (ix) Provide a conclusion stating that
 - (1) the applicant has demonstrated that the effects of aging will be adequately managed so that the intended functions will be maintained consistent with the current licensing basis for the period of extended operation, and that
 - (2) 10CFR54.21(a)(3) has been satisfied.
 - (g) AMRs consistent with the GALL Report, for which further evaluation is required: The report should include the following.
 - (i) The LRA section containing the applicant's further evaluations of AMRs for which further evaluation is required.
 - (ii) A list of the aging effects for which the further evaluation apply.
 - (iii) For the applicant's further evaluations, provide a summary of the basis for concluding that it satisfied the criteria contained in Section 3.1.3.2 of the SRP-LR.
- (10) Attachments
- (a) If the applicant needed to make a docketed response to amend or supplement the LRA so that an acceptable finding could be provided, document the submittal, include the ADAMS accession number, and explain the issue that the submittal resolved and why the submittal resolved the issue.
 - (i) A statement that staff audited the applicant's further evaluations against the criteria contained in Section 3.1.3.2 of the SRP-LR.

- (b) Staff AMR Review Results³: This section documents reviews of AMRs assigned to the project team that are not consistent with the GALL Report. The audit report should document the following, based on a precedence identified by the applicant.
 - (i) The LRA section reviewed
 - (ii) A summary of the type of information provided in the section of the LRA reviewed, including a listing of the AMPs reviewed for this LRA section.
 - (iii) Identify the LRA Tables 3.X.2-Y documented by this audit writeup.
 - (iv) A brief summary of what the project team reviewed, i.e., LRA and applicant basis documents and other implementation documents. Reference the Appendix that lists the details of the documents reviewed.
 - (v) Provide an audit finding that determines whether
 - (1) the applicable aging effects were identified,
 - (2) the appropriate combination of materials and environments were listed, and
 - (3) acceptable aging management programs were specified.
 - (4) If the applicant needed to make a docketed response to amend or supplement the LRA so that an acceptable finding could be provided, document the submittal, include the ADAMS accession number, and explain the issue that the submittal resolved and why the submittal resolved the issue.
 - (vi) If an RAI was issued concerning the AMP, identify the RAI number and briefly discuss the RAI. State whether the RAI remains open or the applicant response has been accepted. If the response was acceptable, document the basis for its acceptance and identify the applicant submittal that provided the response.
 - (vii) Provide a conclusion stating that
 - (1) the applicant has demonstrated that the effects of aging will be adequately managed so that the intended functions will be maintained consistent with the current licensing basis for the period of extended operation, and that
 - (2) 10CFR54.21(a)(3) has been satisfied.

d. SER Input

- i. The project team will prepare an SER input that incorporates the project team's audit and safety evaluations.
- ii. The SER input is to have the following sections.

- 3. Aging Management Review Results
 - 3.0 Introduction
 - 3.0.1 Format of the LRA
 - 3.0.2 Staff's Review Process
 - 3.0.2.1 Review of AMPs
 - 3.0.2.2 Review of AMR Results
 - 3.0.3 Aging Management Programs

³ This section documents reviews of AMRs assigned to the project team that are not consistent with the GALL Report. Repeat the Section 3.X writeup for each of these subsection/structure groups.

- 3.0.3.1 AMPs that are Consistent with GALL Report
 - 3.0.3.1.1 Staff Evaluations
 - 3.0.3.1.2 FSAR Supplement
 - 3.0.3.1.3 Conclusions
- 3.0.3.2 AMPs that are Consistent with GALL Report with Exceptions
- 3.0.3.3 AMPs that are Plant-Specific
- 3.0.4 Quality Assurance Program Elements Integral to Aging Management
- 3.X⁴ Aging Management of _____
 - 3.X.1 Summary of Technical Information in the Application
 - 3.X.2 Staff Evaluation
 - 3.X.2.1 Staff Audit Results
 - 3.X.2.1.1 Audit of AMRs Consistent with the GALL Report
 - 3.X.2.1.2 Audit of AMR Results for which Further Evaluation is Required Recommended
 - 3.X.2.2 Staff Review Results
 - 3.X.3 Conclusion

iii. The following guidance is provided to assist in the preparation of the SER input.

- (1) SER inputs are to be prepared for the following.
 - (a) Each AMP that was determined to be consistent with the GALL Report, which has no exceptions or enhancements.
 - (b) Each AMP that was determined to be consistent with the GALL Report, which has exceptions (identified by either the applicant or the audit team) or enhancements.
 - (c) Each plant-specific AMP
 - (d) AMRs that are consistent with the GALL Report
 - (e) Staff AMR review results⁵

iv. Additional guidance includes

- (a) AMPs determined to be consistent with the GALL Report, with no exceptions. The SER input for these AMPs is the listing of the AMP title, LRA AMP paragraph number, and a discussion of the basis for concluding that the LRA, Appendix C, UFSAR update is acceptable. This SER input documents that the AMP is consistent with the GALL Report.
 - (i) If the applicant needed to make a docketed response to amend or supplement the LRA so that an acceptable finding could be provided, document the submittal, include the ADAMS accession number, and explain the issue that the submittal resolved and why the submittal resolved the issue.
 - (ii) If an RAI was issued concerning the AMP, identify the RAI number and briefly discuss the RAI. State whether the RAI remains open or the applicant

⁴ The LRA is subdivided into six sections that are commonly referred to as Table 2s. These Table 2s address the following system/structure groups: (1) reactor vessel, internals, and reactor coolant system; (2) engineering safety features systems; (3) auxiliary systems; (4) steam power and conversion systems; (5) structures and component supports; (6) electrical and instrumentation and controls.

⁵ AMRs that are not consistent with the GALL Report

- response has been accepted. If the response was acceptable, document the basis for its acceptance and identify the applicant submittal that provided the response.
- (b) AMPs determined to be consistent with the GALL Report, with exceptions or enhancement: The SER input for these AMPs will include a statement that the audit found the AMP consistent with the GALL Report and that any applicant identified exceptions to the GALL Report were found technically acceptable to manage the aging effect during the period of extended operation. The SER input will identify the exceptions and provide the basis for acceptance. The SER input will also assess the LRA, Appendix C, UFSAR Supplement, and document the basis for concluding that the UFSAR supplement is sufficient.
 - (i) If the applicant needed to make a docketed response to amend or supplement the LRA so that an acceptable finding could be provided, document the submittal, include the ADAMS accession number, and explain the issue that the submittal resolved and why the submittal resolved the issue.
 - (ii) If an RAI was issued concerning the AMP, identify the RAI number and briefly discuss the RAI. State whether the RAI remains open or the applicant response has been accepted. If the response was acceptable, document the basis for its acceptance and identify the applicant submittal that provided the response.
 - (c) AMPs that are plant-specific: The SER input is to document the basis for accepting each of the seven elements reviewed by the project team. These SE will reflect the review performed in accordance with Section 5.
 - (i) The SER input is to include a discussion concerning the adequacy of the LRA, Appendix C commitment to revise the plants UFSAR. This discussion is to be based on the review performed in Section 5.
 - (1) If the applicant needed to make a docketed response to amend or supplement the LRA so that an acceptable finding could be provided, document the submittal, include the ADAMS accession number, and explain the issue that the submittal resolved and why the submittal resolved the issue.
 - (ii) The SER is to include a discussion of operating experience.
 - (iii) If an RAI was issued concerning the AMP, identify the RAI number and briefly discuss the RAI. State whether the RAI remains open or the applicant response has been accepted. If the response was acceptable, document the basis for its acceptance and identify the applicant submittal that provided the response.
 - (d) AMRs consistent with the GALL Report:⁶ The report should include the following.
 - (i) Identify the LRA section reviewed
 - (ii) A summary of the type of information provided in the section of the LRA, reviewed, including a listing of the AMPs reviewed for this LRA section.
 - (iii) Identify the LRA Tables 3.X.2-Y documented by this audit writeup.
 - (iv) A summary review of the AMR Notes A through E used to classify the

⁶ Section 6.c.iv(f) provides audit results for all AMRs consistent with the GALL Report, including those AMRs requiring further evaluations. The audits documented in this section address the AMR inputs of component, material, aging effect and AMP. The additional evaluation required by the GALL Report for certain AMRs are documented in section 6.c.iv(g) of this plan. Section 6.c.iv(g) only assesses the additional evaluations not the AMR inputs of component, material, aging effect and AMP.

- AMR line items used in these Tables.
- (v) A brief summary of what the project team reviewed to perform the audit, i.e., LRA and applicant basis documents and other implementation documents. Reference the Appendix that lists the details of the documents reviewed.
 - (vi) Basis for accepting any exceptions to GALL AMRs that were identified by the applicant or the project team reviewer.
 - (1) If the applicant needed to make a docketed response to amend or supplement the LRA so that an acceptable finding could be provided, document the submittal, include the ADAMS accession number, and explain the issue that the submittal resolved and why the submittal resolved the issue.
 - (vii) If an RAI was issued concerning the AMP, identify the RAI number and briefly discuss the RAI. State whether the RAI remains open or the applicant response has been accepted. If the response was acceptable, document the basis for its acceptance and identify the applicant submittal that provided the response.
 - (viii) Provide an audit finding that determines whether
 - (1) the applicable aging effects were identified,
 - (2) the appropriate combination of materials and environments were defined, and
 - (3) acceptable aging management programs were specified.
 - (ix) Provide a conclusion stating that
 - (1) the applicant has demonstrated that the effects of aging will be adequately managed so that the intended functions will be maintained consistent with the current licensing basis for the period of extended operation, and that
 - (2) 10CFR54.21(a)(3) has been satisfied.
- (e) AMRs consistent with the GALL Report, for which further evaluation is required: The report should include the following.
- (i) The LRA section containing the applicant's further evaluations of AMRs for which further evaluation is required.
 - (ii) A list of the aging effects for which the further evaluation apply.
 - (iii) For the applicant's further evaluations, provide a summary of the basis for concluding that it satisfied the criteria contained in Section 3.1.3.2 of the SRP-LR.
 - (1) If the applicant needed to make a docketed response to amend or supplement the LRA so that an acceptable finding could be provided, document the submittal, include the ADAMS accession number, and explain the issue that the submittal resolved and why the submittal resolved the issue.
 - (iv) A statement that staff audited the applicant's further evaluations against the criteria contained in Section 3.1.3.2 of the SRP-LR.
 - (v) If an RAI was issued concerning the AMP, identify the RAI number and briefly discuss the RAI. State whether the RAI remains open or the applicant response has been accepted. If the response was acceptable, document the basis for its acceptance and identify the applicant submittal that provided the response.

- (vi) A statement that the audit report contains additional details; also identify the issue date and the ADAMS accession number
- (f) Staff AMR Review Results: This section documents reviews of AMRs assigned to the project team that are not consistent with the GALL Report. The audit report should document the following, based on a precedence identified by the applicant.
 - (i) The LRA section reviewed
 - (ii) A summary of the type of information provided in the section of the LRA, reviewed, including a listing of the AMPs reviewed for this LRA section.
 - (iii) Identify the LRA Tables 3.X.2-Y documented by this audit writeup.
 - (iv) A brief summary of what the project team reviewed, i.e., LRA and applicant basis documents and other implementation documents. Reference the Appendix that lists the details of the documents reviewed.
 - (v) Provide an audit finding that determines whether
 - (1) the applicable aging effects were identified,
 - (2) the appropriate combination of materials and environments were listed, and
 - (3) acceptable aging management programs were specified.
 - (4) If the applicant needed to make a docketed response to amend or supplement the LRA so that an acceptable finding could be provided, document the submittal, include the ADAMS accession number, and explain the issue that the submittal resolved and why the submittal resolved the issue.
 - (5) If an RAI was issued concerning the AMP, identify the RAI number and briefly discuss the RAI. State whether the RAI remains open or the applicant response has been accepted. If the response was acceptable, document the basis for its acceptance and identify the applicant submittal that provided the response.
 - (vi) Provide a conclusion stating that
 - (1) the applicant has demonstrated that the effects of aging will be adequately managed so that the intended functions will be maintained consistent with the current licensing basis for the period of extended operation, and that
 - (2) 10CFR54.21(a)(3) has been satisfied.

7 Document Retention

- a. After the NRC has made its licensing decision, all copies of documents collected and all documents generated to complete the audit report, such as copies of documentation obtained during the audit, audit worksheets, question and answer tracking documentation, etc., are to be discarded.

Table 1-1. Elements of an Aging Management Program for License Renewal Element Description		
1	Scope of program	Scope of program should include the specific structures and components subject to an AMR for license renewal.
2	Preventive actions	Preventive actions should prevent or mitigate aging degradation.
3	Parameters monitored or inspected	Parameters monitored or inspected should be linked to the degradation of the particular structure or component intended functions.
4	Detection of aging effects	Detection of aging effects should occur before there is loss of structure or component intended functions. This includes aspects such as method or technique (i.e., visual, volumetric, surface inspection), frequency, sample size, data collection and timing of new/one-time inspections to ensure timely detection of aging effects.
5	Monitoring and trending	Monitoring and trending should provide predictability of the extent of degradation and timely corrective or mitigative actions.
6	Acceptance criteria	Acceptance criteria, against which the need for corrective action will be evaluated, should ensure that the structure or component intended functions are maintained under all current licensing basis design conditions during the period of extended operation.
7	Corrective actions (Audited by NRC Division of Inspection Program Management)	Corrective actions, including root cause determination and prevention of recurrence, should be timely.
8	Confirmation process (Audited by NRC Division of Inspection Program Management)	Confirmation process should ensure that preventive actions are adequate and that appropriate corrective actions have been completed and are effective.
9	Administrative controls (Audited by NRC Division of Inspection Program Management)	Administrative controls should provide a formal review and approval process.
10	Operating experience	Operating experience of the aging management program, including past corrective actions resulting in program enhancements or additional programs, should provide objective evidence to support the conclusion that the effects of aging will be managed adequately so that the structure and component intended functions will be maintained during the period of extended operation.

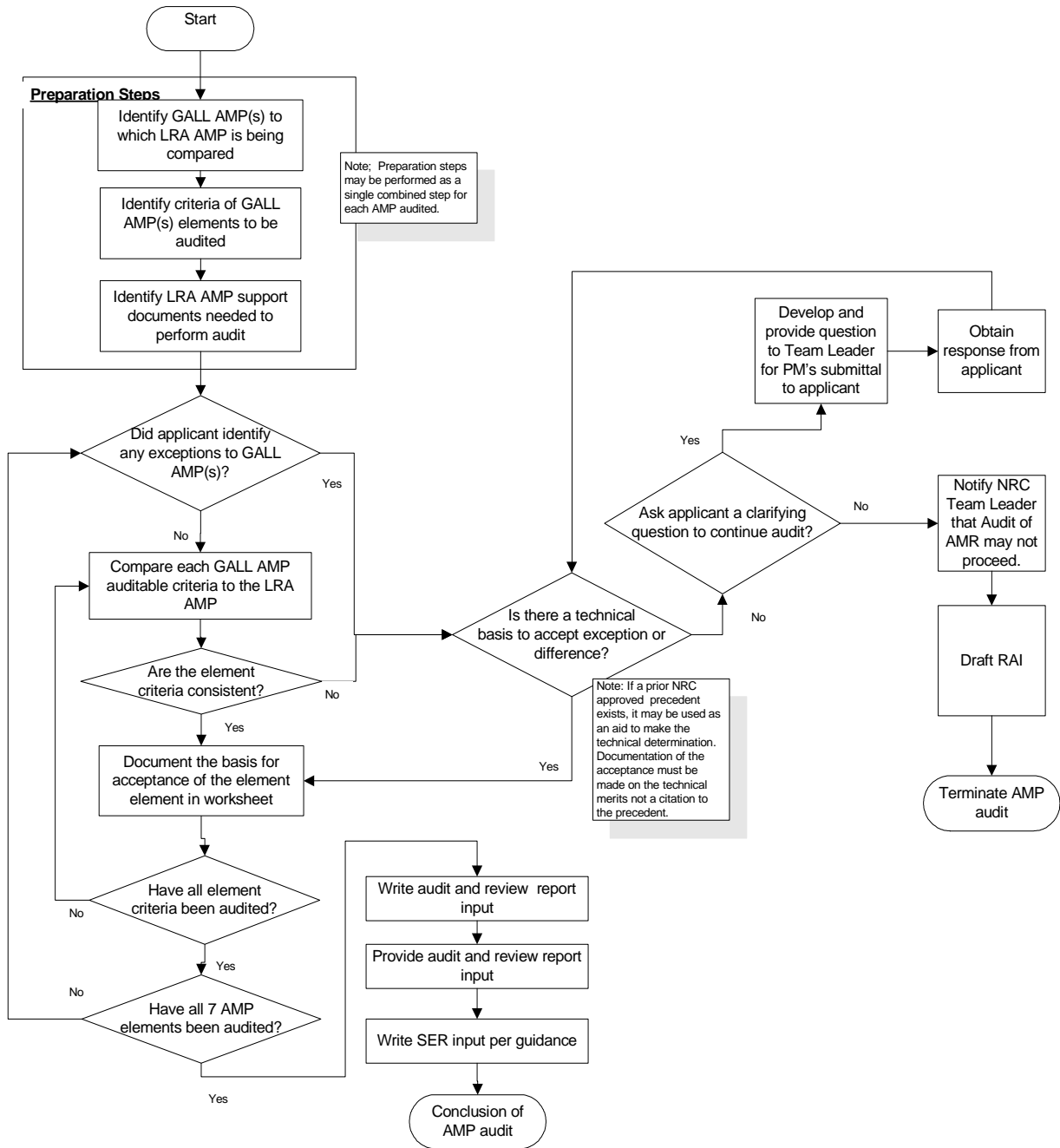


Figure 1-1. Audit of AMPs Consistent with GALL Report

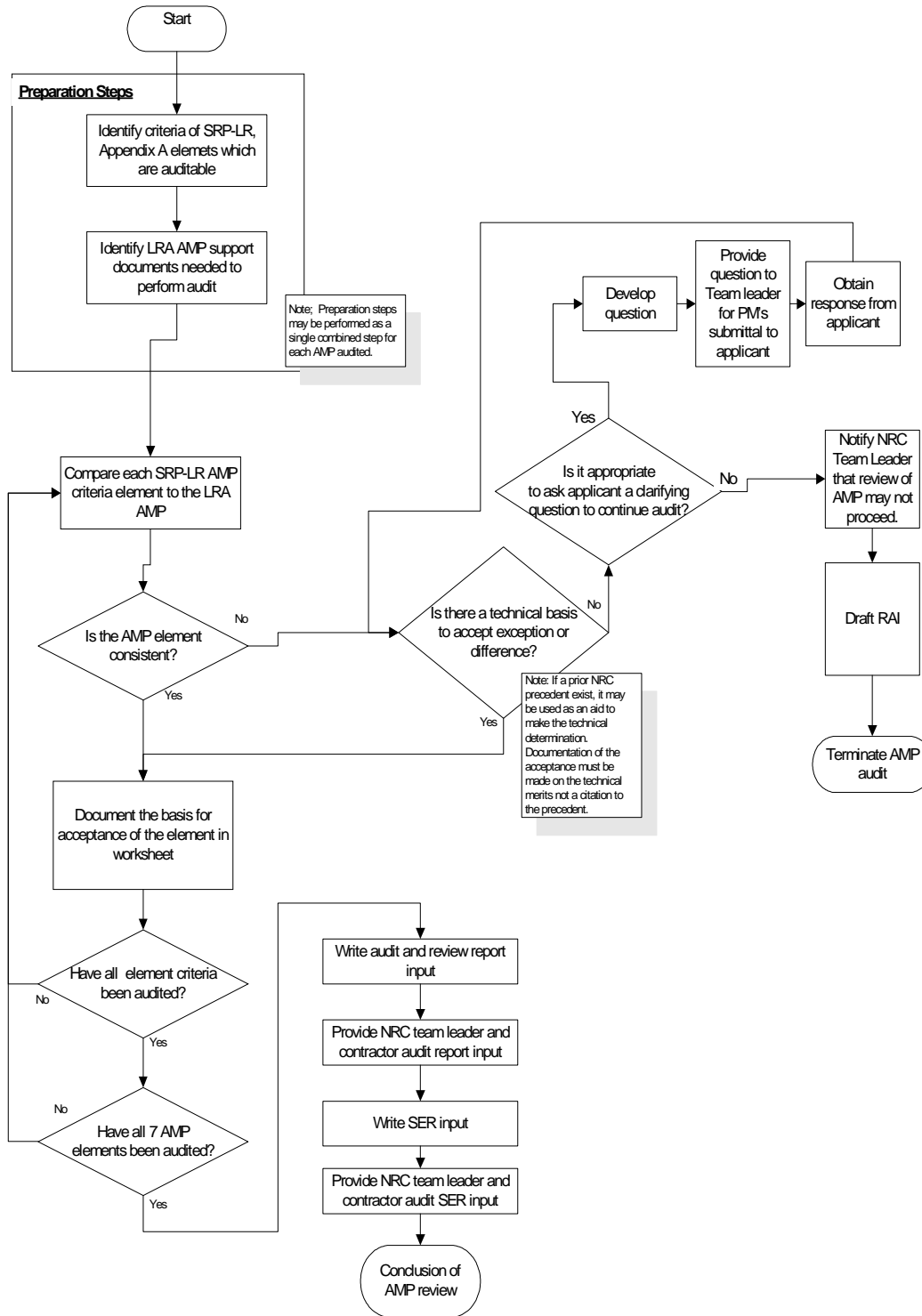


Figure 1-2. Audit of Plant-Specific AMPs

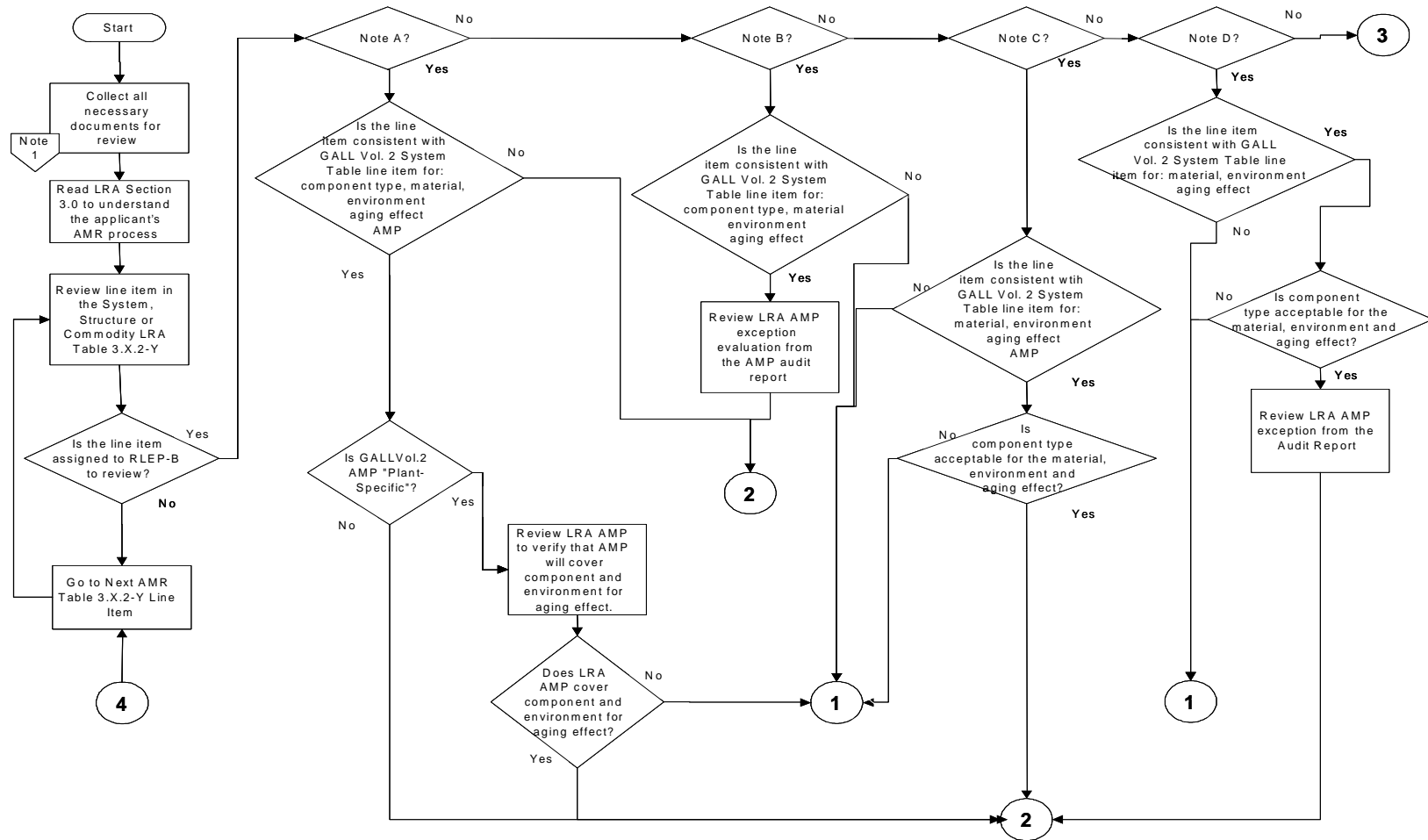
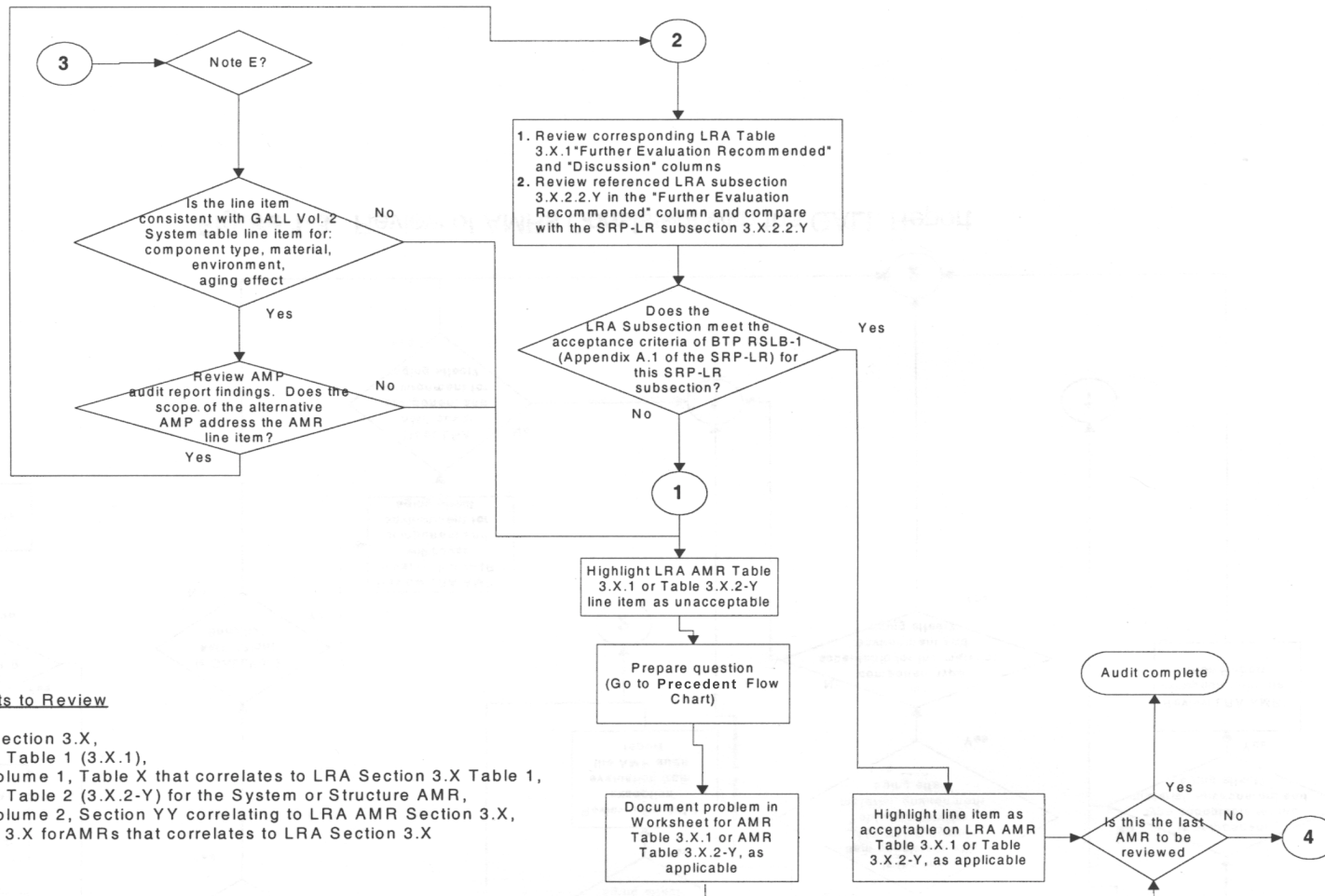


Figure 1-3. Review of AMRs Consistent with the GALL Report



Note 1

Note 1: Documents to Review

- The LRA AMR Section 3.X,
- LRA Section 3.X Table 1 (3.X.1),
- GALL Report, Volume 1, Table X that correlates to LRA Section 3.X Table 1,
- LRA Section 3.X Table 2 (3.X.2-Y) for the System or Structure AMR,
- GALL Report, Volume 2, Section YY correlating to LRA AMR Section 3.X,
- SRP-LR Section 3.X for AMRs that correlates to LRA Section 3.X

Figure 1-3. Review of AMRs Consistent with the GALL Report (contd)

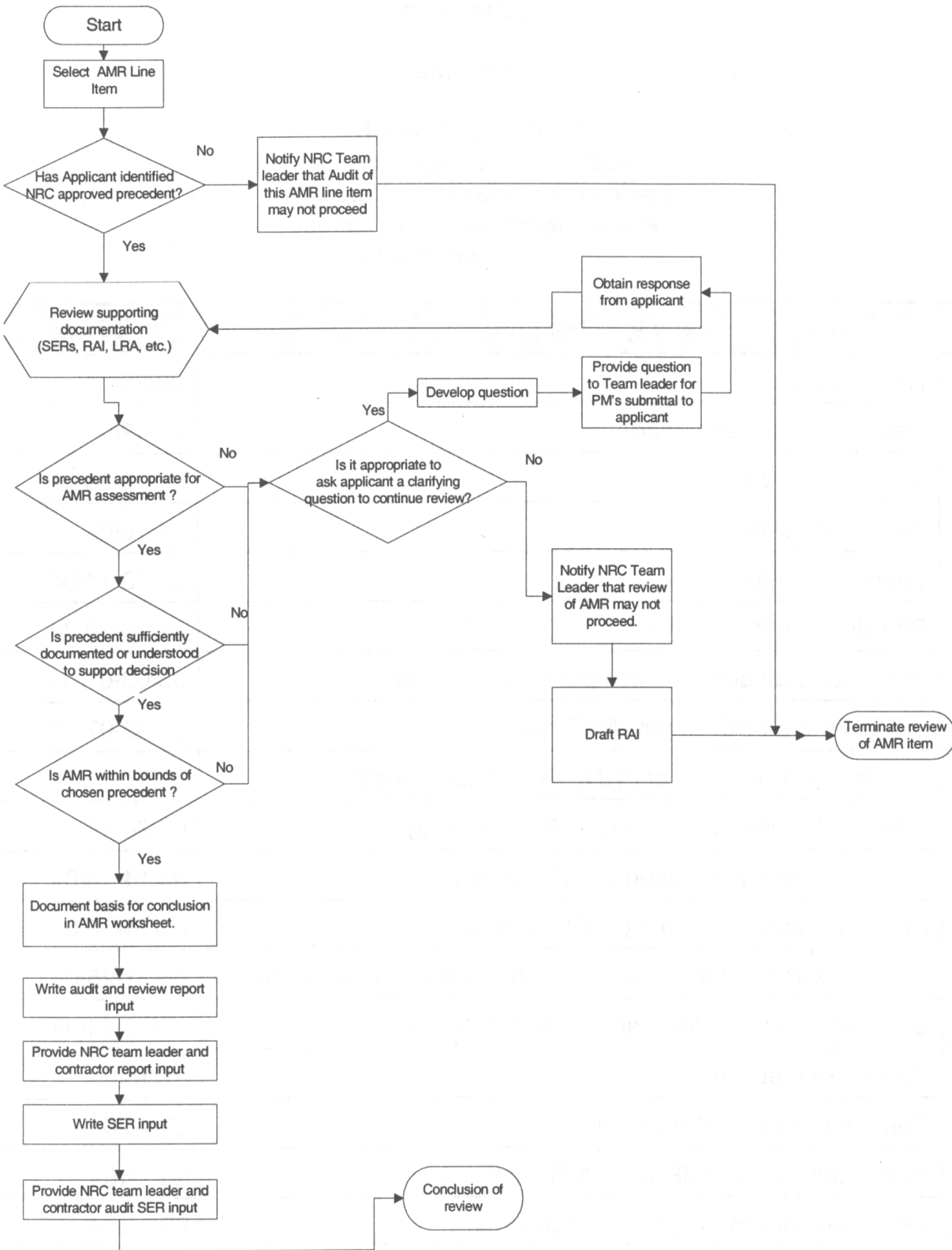


Figure 1-4. AMR Review Using NRC-Approved Precedent

Appendix A

Schedule

Plant: Point Beach
Team Leader: Kurt Cozens
Backup Team Leader: Mark Lintz
Project Manager: Mike Morgan
Contractor: PNNL

Activity/Milestone		Schedule
1	Receive LRA	02/26/04
2	Review assignments made	03/19/04
3	Training at PNNL	04/12-15/04
4	Issue audit plan to PM	04/19/04
5	Team planning meeting	04/13-14/04
6	Site visit 1 (AMP reviews)	04/26-30/04
7	Reviewer draft audit report input (AMP reviews)	05/03-07/04
8	Reviewer draft SER input (AMP reviews)	05/03-07/04
9	In-office AMR reviews at PNNL (Kurt Cozens visit)	05/17-21/04
10	Site visit 2 (resolve AMR and AMP questions)	06/7-11/04
11	Reviewer draft audit report (AMR section)	06/14-18/04
12	Reviewer draft SER input (AMR reviews)	06/14-18/04
13	Staff visits PNNL for writing review of Audit and Review Report	06/21-25/04
14	Site visit 3 (resolve AMR and AMP questions)	07/12-14/04
15	Public exit meeting	07/15/04
16	Cutoff for issuing RAIs to PM	07/16/04
17	Final audit report (AMP and AMR sections)	08/12/04
18	Final input for draft SER with open items	09/01/04

Appendix B

Project Team Membership

Organization	Name	Function
NRC/NRR/DRIP/RLEP-B	Kurt Cozens	Team Leader
NRC/NRR/DRIP/RLEP-B	Mark Lintz	Backup Team Leader
Contractor - PNNL ^(a)	Tom Taylor	Contractor Lead, Reviewer, Materials
Contractor - PNNL	Steve Gosselin	Reviewer (Mechanical, SSCs)
Contractor - PNNL	Kent Faris	Reviewer (Reactor/Plant systems)
Contractor - PNNL	Peter Penn	Reviewer (Civil/Structural engineering)
Contractor - PNNL	Don Jarrell	Reviewer (Electrical)
(a) Pacific Northwest National Laboratory.		

Appendix C

Aging Management Program Assignments

The following AMPs have been assigned to the Point Beach project team for their review.

LRA AMP Number	GALL Report AMP Number	AMP Title	Consistent with GALL Report		Assigned Reviewer
			Yes	No	
B2.1.1	XI.M1, XI.M3	ASME, Section XI, IWB, IWC, & IWD	X		Taylor
B2.1.2	XI.S1, XI.S2, XI.S4	ASME, Section XI, IWE and IWL	X		Penn
B2.1.3	XI.S3	ASME, Section XI, IWF	X		Taylor
B2.1.4	XI.M18	Bolting Integrity Program	X		DE
B2.1.5	XI.M22	Boroflex Monitoring Program	X		Jarrell
B2.1.6	XI.M10	Boric Acid Corrosion Program	Yes		DE
B2.1.7	XI.M34	Buried Services Monitoring Program	Yes		Penn
B2.1.8	XI.E1, XI.E2, XI.E3	Cable Condition Monitoring Program	X		Jarrell
B2.1.9	XI.M21	Closed-Cycle Cooling Water Surveillance Program	X		Faris
B2.1.10	XI.M26, XI.M27	Fire Protection Program	X		Lintz
B2.1.11	XI.M17	Flow-Accelerated Program	Yes		Gosselin
B2.1.12	XI.M30	Fuel Oil Chemistry Control Program	X		Faris
B2.1.13	XI.M32, XI.M33	One-Time Inspection Program	X		Faris
B2.1.14	XI.M20	Open-Cycle Cooling (Service) Water Surveillance Program	X		Gosselin
B2.1.15		Periodic Surveillance and Preventive Maintenance Program	PS		Lintz
B2.1.16	XI.M11	Reactor Coolant System Alloy 600 Program	X		DE

LRA AMP Number	GALL Report AMP Number	AMP Title	Consistent with GALL Report		Assigned Reviewer
			Yes	No	
B2.1.17	XI.M13, XI.M16	Reactor Vessel Internals Program	X		Gosselin
B2.1.18	XI.M31	Reactor Vessel Surveillance Program	X		DE
B2.1.19	XI.M19	Steam Generator Integrity Program	Yes		DE
B2.1.20	XI.M23, XI.S5, XI.S6, XI.S7	Structures Monitoring Program	X		Penn
B2.1.21	XI.M29	Systems Monitoring Program	X		Jarrell
B2.1.22		Tank Internal Inspection Program	PS		DE
B2.1.23		Thimble Tube Inspection Program	PS		DE
B2.1.24	XI.M2	Water Chemistry Control Program	x		Taylor
B3.1	X.S1	Environmental Qualification Program	Yes		Jarrell
B3.2	X.M1	Fatigue Monitoring Program	Yes		Gosselin
B3.3	X.E1	Pre-Stressed Concrete Containment Tendon Surveillance Program	Yes		Penn
X = with exceptions PS = plant-specific					

Appendix D

Aging Management Review Assignments

AMRs	Lead Reviewer
3.1 Aging Management of Reactor Vessel, Internals, and Reactor Coolant System	Taylor
3.2 Aging Management of Engineered Safety Features	Gosselin
3.3 Aging Management of Auxiliary Systems	Faris
3.4 Aging Management of Steam and Power Conversion Systems	Jarrell
3.5 Aging Management of Containment, Structures, and Component Supports	Penn
3.6 Aging Management of Electrical and Instrumentation and Controls	Jarrell

The specific AMRs reviewed by the project team are documented in Attachment 2. The project team will review all the AMRs identified in Attachment 2 except for those grayed out in the **Notes** column (see the example shown in Figure D-1).

After issuance of this audit and review plan, the project team leader may reassign the AMR to another reviewer or have the AMR reassigned to another NRC section, if appropriate.

Figure D-1. Classification of AMRs (Reviewed (R) or Not Reviewed (NR))

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG - 1801 Volume 2 Line Item	Table 1 Item	Notes	
Bolting for Flanged Piping Joints, RCP and Valve Closure	Mechanical Closure Integrity	Low Alloy Steel	Borated Water Leaks (External)	Loss of Mechanical Closure Integrity due to Aggressive Chemical Attack	Boric Acid Corrosion Program	IV.C2.3-f, IV.C2.4-f	3.1.1-38	A	NR ^(a)
			Containment (External)	Loss of Mechanical Closure Integrity due to Stress Relaxation	Bolting Integrity Program	IV.C2.3-g, IV.C2.4-g	3.1.1-26	B, 7	NR
Orifices and Reducers	Pressure Boundary	Stainless Steel	Containment (External)	None	None Required			J	R ^(b)
			Treated Water - Primary, 140HF<T<480HF (Internal)	Cracking due to SCC	Water Chemistry Control Program	(IV.C2.2-h)	(3.1.1-07)	D, 20	
(a) NR = the AMR was not reviewed (b) R = the AMR was reviewed.									

Appendix E

Consistent with GALL Report AMP Audits – Worksheet for Recording Audit Information

This appendix provides the worksheet form for recording audit information consistent with GALL Report AMP audits. The worksheet provides, as an aid for the reviewer, a process for documenting the basis for the assessment of the elements and subelements contained in the GALL Report AMPs (Chapter XI of NUREG-1801, Volume 2). The completed worksheets will not be treated as official NRC records; rather, they are intended to provide a systematic method to record the basis for assessments or to identify when the applicant needs to provide clarification or additional information. Input recorded in the worksheets also will be useful when preparing the audit report and safety evaluation report input.

Consistent with GALL Report AMP Audit Worksheet

LRA Appendix Subsection:	LRA AMP Title:
GALL Report Subsection:	GALL Report Title:

A. Attribute Review and Audit

1. Scope of Program:

Consistent with GALL Report Exception Enhancement Difference Identified
Discussion:

2. Preventive Action:

Consistent with GALL Report Exception Enhancement Difference Identified
Discussion:

3. Parameters Monitored/Inspected:

Consistent with GALL Report Exception Enhancement Difference Identified
Discussion:

4. Detection of Aging Effects:

Consistent with GALL Report Exception Enhancement Difference Identified
Discussion:

5. Monitoring and Trending:

Consistent with GALL Report Exception Enhancement Difference Identified
Discussion:

6. Acceptance Criteria:

Consistent with GALL Report Exception Enhancement Difference Identified
Discussion:

7. Corrective Action:

To be performed by DIPM

8. Confirmation Process:

To be performed by DIPM

9. Administrative Controls:

To be performed by DIPM

10. Operating Experience:

B. FSAR Supplement Review:

C. Audit Remarks (if any):

D. Applicant Contact:

E. References/Documents Used:

Project Team Member/Date: _____

Appendix F
Worksheet
for
Plant-Specific LRA AMPs

The Plant-Specific AMP Audits Worksheet Form provides, as an aid for the reviewer, an informal process to document the basis for the assessments concerning individual elements and sub-elements contained in Appendix A, Branch Technical Position, to the SRP-LR. The worksheet is not intended to be a formal NRC record but to provide a systematic method for recording the basis for assessments or identifying when the applicant needs to provide clarification or additional information. Input recorded in this worksheet will be useful when preparing the audit report and safety evaluation report input.

Plant-Specific AMP Audit Worksheet

AMP Title: _____

Appendix Subsection: _____

A. Attribute Review and Audit

1. Scope of Program:

Discussion:

2. Preventive Action:

Discussion:

3. Parameters Monitored/Inspected:

Discussion:

4. Detection of Aging Effects:

Discussion:

5. Monitoring and Trending:

Discussion:

6. Acceptance Criteria:

Discussion:

7. Corrective Action: (To be performed by DIPM)

8. Confirmation Process: (To be performed by DIPM)

9. Administrative Controls: (To be performed by DIPM)

10. Operating Experience:

Discussion:

B. FSAR Supplement Review:

C. Audit Remarks (if any):

D. Applicant Contact:

E. References/Documents Used:

Project Team Member/Date: _____ / _____

Appendix G

AMR Worksheet

**Table 3.X.1 AMR Comparison Worksheet
“Further Evaluation Recommended”**

AMR System: _____

Project Team Member: _____

Date: _____

The project team verified that items in Table 3.X.1 (Table 1) correlate to items in the GALL Report Volume 1, Table X. All items in Table 1 were reviewed. Those items that have a “yes” for “further evaluation recommended” are addressed in the following table. All other items in Table 1 are determined to be consistent with the GALL Report, except those items listed below. The entireties below are questions that when responded to by the applicant may result in the reviewer concluding that the AMR is consistent with the GALL Report.

Item No.	Further Evaluation Recommended	Basis for Concluding That “Further Evaluation Required” is Consistent with the GALL Report or Question for Applicant

Table 3.X.2-Y AMR Worksheet

AMR System:

AMR Section:

Project Team Member: _____

Date: _____

AMR line items assigned to the Project Team were reviewed for consistency with GALL Report, Volume 2, tables and adequacy of the aging managing programs. All items in the Table 2 of the _____ system are acceptable with the exception of the following items.

Note Type	Component Type	Question for Applicant and Response
		<input type="checkbox"/> Confirm acceptable additional evaluation or <input type="checkbox"/> N/A
		<input type="checkbox"/> Confirm acceptable additional evaluation or <input type="checkbox"/> N/A
		<input type="checkbox"/> Confirm acceptable additional evaluation or <input type="checkbox"/> N/A

Applicant Contact:

References/Documents Used:

Appendix H

Consistent with GALL Report Notes⁷ (Notes for LRA Tables 3.x.2-y)	
Note	Description
A	Consistent with GALL Report item for component, material, environment, and aging effect. AMR is consistent with GALL Report AMR.
B	Consistent with GALL Report item for component, material, environment, and aging effect. AMR takes some exceptions to GALL Report AMR.
C	Component is different, but consistent with GALL Report item for material, environment, and aging effect. AMP is consistent with GALL Report AMR.
D	Component is different, but consistent with GALL Report item for material, environment, and aging effect. AMR takes some exceptions to GALL Report AMR.
E	Consistent with GALL Report for material, environment, and aging effect, but a different aging management program is credited.
F	Material not in GALL Report for this component.
G	Environment not in GALL Report for this component and material.
H	Aging effect not in GALL Report for this component, material and environment combination.
I	Aging effect in GALL Report for this component, material and environment combination is not applicable.
J	Neither the component nor the material and environment combination is evaluated in GALL Report.

⁷ Each AMR line item is coded with a letter which represents a standard note designations based on a letter from A. Nelson, NEI, to P. T. Kuo, NRC, "U.S. Nuclear Industry's Proposed Standard License Renewal Application Format Package, Request NRC Concurrence," dated January 24, 2003 (ML030290201). (Note that the staff concurred in the format of the standardized format for license renewal applications by letter dated April 7, 2003, from P.T. Kuo, NRC, to A. Nelson, NEI (ML030990052).) Notes that use numeric designators are specific to Point Beach Units 1 and 2.