December 28, 2000

MEMORANDUM TO: Christopher I. Grimes, Chief
License Renewal and Standardization Branch
Division of Regulatory Improvements Programs
Office of Nuclear Reactor Regulation

FROM: Theodore R. Quay, Chief **RA Gregory Cwalina for**
Quality Assurance, Vendor Inspection, Maintenance
and Allegations Branch
Division of Inspection Program Management
Office of Nuclear Reactor Regulation

SUBJECT: ARKANSAS NUCLEAR ONE, UNIT 1 LICENSE RENEWAL APPLICATION - SCOPING AND SCREENING PROCESS AUDIT REPORT (TAC NO. MA8054)

Plant Name:	Arkansas Nuclear One, Unit 1
Utility Name:	Entergy Operations Inc.
Docket No.(s):	50-313
TAC No.(s):	MA8054
Licensing Status:	DPR-51
Review Branch:	IQMB
Review Status:	Complete

The Quality Assurance, Vendor Inspection, Maintenance and Allegations Branch (IQMB) conducted an audit of the applicant's scoping and screening methodology from May 22-24, 2000, at the applicant's facility in Russellville, Arkansas. The audit results (Attachment) formed the basis for the staff's safety evaluation input regarding the applicant's scoping and screening methodology which was previously provided to you in a memorandum from Theodore R. Quay dated October 16, 2000.

The purpose of the audit was to determine whether the scoping and screening methodology described by the applicant in its license renewal application (LRA) for the Arkansas Nuclear One - Unit 1 (ANO-1) was implemented consistent with the requirements of 10 CFR Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants," and the ANO-1 LRA.

Should you require additional information, please contact Greg Galletti, of my staff, at 415-1831.

Attachment: As stated

Docket No. 50-313

cc: RPrato, PM

December 28, 2000

MEMORANDUM TO: Christopher I. Grimes, Chief
License Renewal and Standardization Branch
Division of Regulatory Improvements Programs
Office of Nuclear Reactor Regulation

FROM: Theodore R. Quay, Chief **RA Gregory Cwalina for**
Quality Assurance, Vendor Inspection, Maintenance
and Allegations Branch
Division of Inspection Program Management
Office of Nuclear Reactor Regulation

SUBJECT: ARKANSAS NUCLEAR ONE, UNIT 1 LICENSE RENEWAL APPLICATION - SCOPING AND SCREENING PROCESS AUDIT REPORT (TAC NO. MA8054)

Plant Name: Arkansas Nuclear One, Unit 1
Utility Name: Entergy Operations Inc.
Docket No.(s): 50-313
TAC No.(s): MA8054
Licensing Status: DPR-51
Review Branch: IQMB
Review Status: Complete

The Quality Assurance, Vendor Inspection, Maintenance and Allegations Branch (IQMB) conducted an audit of the applicant's scoping and screening methodology from May 22-24, 2000, at the applicant's facility in Russellville, Arkansas. The audit results (Attachment) formed the basis for the staff's safety evaluation input regarding the applicant's scoping and screening methodology which was previously provided to you in a memorandum from Theodore R. Quay dated October 16, 2000.

The purpose of the audit was to determine whether the scoping and screening methodology described by the applicant in its license renewal application (LRA) for the Arkansas Nuclear One - Unit 1 (ANO-1) was implemented consistent with the requirements of 10 CFR Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants," and the ANO-1 LRA.

Should you require additional information, please contact Greg Galletti, of my staff, at 415-1831.

Attachment: As stated

Docket No. 50-313

cc: RPrato, PM
Accession Number ML 003781973
DISTRIBUTION:
IQMB R/F BBoger GSuh BPrato,PM
DOCUMENT NAME:C:\ano audit report.wpd
To re□ei□e a □op□ o□ t□i□ do□u□ent□ indi□ate in t□e □o□: □C□□ Cop□ wit□out en□□o□ure□ □E□□ Cop□ wit□ en□□ o□ure□ □N□□ No □op□

O□□CE	□M□□D□□M	□□M□□D□□M	□□M□□D□□M	
NAME	□□a□□etti	□M□□nt□re	T□ua□	
DATE	□□□□□□□□	□□□□□ □□□	□□□□□□□	

O□□C□A□ □ECO□D CO□□

ARKANSAS NUCLEAR ONE, UNIT 1 LICENSE RENEWAL APPLICATION - SCOPING AND SCREENING PROCESS AUDIT REPORT (TAC NO. MA8054)

Executive Summary

From May 22-25, Greg Galletti and Juan Peralta, DIPM/IQMB staff, and Robert Prato, DRIP/RLSB staff, performed an audit of the Arkansas Nuclear One, Unit One (ANO-1) license renewal scoping and screening methodology developed to support the ANO-1 license renewal application (LRA).

The focus of the staff's audit was to evaluated the applicants administrative control documents governing the implementation of their LRA scoping and screening methodology, and to review selected design documentation which provided the technical basis for various plant systems, structures, and components evaluated as part of the LRA scoping and screening methodology.

A significant component of the licensee's scoping and screening methodology involved the use of the Component-Level Quality List (CLQL) developed by the licensee to support engineering design and maintenance on plant systems. As such, the staff reviewed the CLQL development process during the audit to further understand the bases and scope of the program.

In addition, the licensee's LRA scoping and screening methodology resulted in the development of a series of Aging Management Reports (AMRs) for the various plant systems which were determined to be within scope of the LRA process. The AMRs provided a detailed description of the functional requirements of the systems, and the components specifically screened into the process for evaluation and management within specific aging management programs. As part of the AMR development, the applicant used design bases information developed as part of the Design Bases Reconstitution Program. This design bases information contained system descriptions that identified the functions and boundaries of the ANO-1 systems, including the identification of safety-related and non-safety-related requirements of the systems as well as regulatory functions assigned to the systems in response to licensing commitments generated during the operational phase of the plant. The audit team reviewed a sample of the AMRs, design bases documents, and CLQL development documentation to assure that a comprehensive analysis of ANO-1 design bases information, beyond the accident analysis portion of the Updated Final Safety Analysis Report, had been considered as part of the LRA scoping and screening methodology implementation.

The audit team also reviewed the mechanical components, electrical components, and structural components methodology to assure that the applicant identified the systems, structures, and components within the scope of the rule and subject to an AMR consistent with the requirements of the rule under 10 CFR 54.4 and 54.21(a)(1). The team verified that the methodology was implemented as described in the applicants administrative controls documentation and the results indicated a comprehensive analysis was undertaken.

Overall, the audit provided the staff with additional information regarding the administrative controls governing the implementation of the LRA scoping and screening methodology, and a refined understanding of the technical basis upon which the scoping and screening criteria were implemented in accordance with the applicants scoping and screening methodology.

I. Introduction

From May 22-25, Greg Galletti and Juan Peralta, DIPM/IQMB staff, and Robert Prato, DRIP/RLSB staff, performed an audit of the Arkansas Nuclear One, Unit One (ANO-1) license renewal scoping and screening methodology developed to support the ANO-1 license renewal application (LRA).

The focus of the staff's audit was to evaluated the applicants administrative control documents governing the implementation of their LRA scoping and screening methodology, and to review selected design documentation which provided the technical basis for various plant systems, structures, and components evaluated as part of the LRA scoping and screening methodology.

II. Background

Scoping Methodology

10 CFR 54.21, "Contents of application — technical information," requires, in part, that each application for license renewal must contain an integrated plant assessment (IPA). For those systems, structures, and components (SSCs) within the scope of license renewal as delineated in 10 CFR 54.4 the IPA must identify and list those structures, and components subject to an AMR.

In the LRA, Section 2.1.2, "Assessment using criteria in 10CFR54.4," the applicant discussed the scoping methodology as it related to the safety-related criteria in accordance with 10CFR54.4(a)(1), non safety-related criteria in accordance with 10CFR54.4(a)(2), and other scoping in accordance with 10CFR54.4(a)(3) for regulated events.

With respect to the safety-related criteria, the applicant stated that the SSCs within the scope of license renewal include safety-related SSCs which are those relied upon to remain functional during and following design-basis events (as defined in 10CFR50.49(b)(1)) to ensure the following functions: (i) the integrity of the reactor coolant pressure boundary; (ii) the capability to shut down the reactor and maintain it in a safe shutdown condition; or (iii) the capability to prevent or mitigate the consequences of accidents that could result in potential offsite exposure comparable to the guidelines in 10CFR50.34(a)(1) or 10CFR100.11 of this Chapter, as applicable.

The ANO-1 summary and CLQL were used during the IPA to identify ANO-1 SSCs that are safety-related. Since the ANO-1 summary and CLQL include all safety-related SSCs for ANO-1, this process to identify SSCs meets the criteria of 10CFR54.4(a)(1).

With respect to the non safety-related criteria, the applicant states that the majority of SSCs whose failure could prevent satisfactory accomplishment of any of the safety-related functions in 10 CFR 54.4 (a)(1) are classified as safety-related at ANO-1. On the basis of a review of the ANO-1 UFSAR and design documents, the applicant identified a few cases in which passive, long-lived, non safety-related components could impact safety-related functions. Spatially-related components in which the physical location could result in interaction between components including seismic or flooding interactions were included. The few cases in which

ANO-1 non safety-related components could impact safety-related functions have been identified and the associated components have been included in the scope of license renewal in accordance with the criteria of 10CFR54.4(a)(2).

With respect to other scoping criteria the applicant reviewed all SSCs relied on in safety analyses or plant evaluations to perform a function that demonstrates compliance with the Commission's regulations for fire protection (10CFR50.48), environmental qualification (10CFR50.49), pressurized thermal shock (10CFR50.61), anticipated transients without scram (10CFR50.62), and station blackout (10CFR50.63) to ensure they were adequately accounted for in the scoping methodology. Design documentation to support this review was developed as part of the upper level design (ULD) process. The ULDs were developed by the applicant during the design configuration documentation project initiated in April 1988 to support the design basis adequacy verification for the ANO units. The ULDs define the design criteria, requirements, and bases for ANO systems and structures, design-bases accident analyses, and topical (generic) areas such as fire protection, environmental qualification, flooding, high energy line break, and other design conditions consistent with the CLB of the plant. Sources of information embodied in the ULDs include, regulatory documents, industry codes and standards, design change package information, and general correspondence related to the design of the plant from both internal and external sources.

In summary, the SSCs relied on in safety analyses or plant evaluations to perform a function that demonstrates compliance with NRC regulations for fire protection, environmental qualification, pressurized thermal shock, anticipated transients without scram, and station blackout, have been included in the scope of license renewal in accordance with the criterion of 10CFR54.4(a)(3).

Determination of Structures and Components Subject to an Aging Management Review

Following the determination of SSCs within the scope of license renewal, the applicant implemented a process for determining which SCs from the SSCs within the scope of LR would be subject to an AMR in accordance with the requirements of 10 CFR 54.21(a)(1). In the LRA, Section 2.1.3, "Assessment using criteria in 10CFR54.21(a)(1)," the applicant discussed these screening activities as they related to the SSCs that are within the scope of license renewal. The results of the screening activities are contained in the application in Section 2.3 for mechanical components, Section 2.4 for structures, and Section 2.5 for electrical commodities.

Mechanical Components Review

The applicant stated that screening process used to determine which SCs subject to AMR is consistent with the guidance in NEI 95-10. The mechanical components that are subject to AMR were identified by reviewing the following documentation: (1) ANO-1 piping and instrumentation diagrams, (2) the ANO-1 UFSAR, and (3) ANO-1 Upper Level Documents. Component intended functions were then determined on the basis of a review of the ANO-1 UFSAR and design documents. Components within the boundary of the systems scoped into the LRA process that perform their intended functions without moving parts or without a change in configuration or properties were identified, along with the intended functions that needed to be maintained.

Structures and Structural Component Review

Upon identifying the SSCs within the scope of license renewal, the applicant performed the following screening review to determine which structures and structural components would be subject to an AMR.
The ANO-1 structural components within the scope of 10CFR Part 54 were reviewed to determine those components subject to an AMR in accordance with 10CFR54.21(a)(1). An AMR of a structural component is required if the component performs an intended function without moving parts or without a change in configuration or properties (i.e., passive) and if it is not subject to replacement on the basis of a qualified life or specified time period (i.e., long-lived).

For the purposes of the LRA screening process, the various structural components were divided into three groups on the basis of material of construction and component-level function, with sub-materials indicated as appropriate. Structural intended functions by component and commodity were identified and used for the purposes of the screening. Bulk commodities were also identified and grouped on the basis of materials of construction, with sub-materials indicated, as appropriate.

Electrical Components Review

Upon identifying the SSCs within the scope of license renewal, the applicant performed the following screening review to determine which electrical components would be subject to an AMR. As part of this effort, the applicant participated in an industry initiative, coordinated by NEI, to develop a commodity evaluation approach. The passive, long-lived electrical components were grouped into commodities consistent with NEI 95-10, Appendix B, and the following passive electrical component groups were identified as requiring an AMR: splices, connectors, terminal blocks, and cables. Excluded from these commodities are individual splices, connectors, and terminal blocks that are classified as piece-parts of larger complex assemblies. For example, the wiring, terminal blocks, and connectors located internal to a breaker cubicle were considered piece-parts of the breaker. Because a breaker is an active component not subject to an AMR, the piece-parts that share in the intended function of that component are not subject to an AMR.

III. Staff Review

During an audit of the ANO-1 license renewal scoping and screening methodology conducted by the NRC staff from May 22 through 24, 2000, at ANO-1 offices in Russellville, AK, the audit team focused on reviewing the scoping and screening methodology, including detailed discussions with the cognizant engineers on the implementation and control of the program, review of administrative control documentation and a review of selected design documentation used by the applicant during the scoping and screening process.

As a result of the audit, additional information regarding the scoping and screening methodology was identified. Specifically, the applicant described in detail the CLQL development process and the ULD document program, which was the basis for verifying safety and non-safety related design functions for specific SSCs. Included in the ULD documentation

were a series of system specific evaluations, a set of design basis accident analysis evaluations, and a set of topical (generic) evaluations beyond those in the UFSAR Chapter 14 accident analysis, which provided the basis for initial inclusion of SSCs into the scoping process for license renewal. The combination of efforts to develop the ULD's and CLQL were instrumental in identifying the design basis and design conditions considered during the LRA scoping and screening methodology implementation.

The audit team reviewed a sample of the system level and topical level ULD reports to better understand the approach the applicant implemented to determine which SSCs would be initially placed in scope for license renewal. The team found the ULD documents to provide a concise, well-documented discussion of the system, including safety-related, non safety-related, and NRC-required functions (i.e., functions which had been assigned as a result of commitments to the NRC including those for the Commission regulations identified under 10 CFR 54.4 (a)(3)). Included in each ULD was a detailed list of the sources of information which included both ANO-specific sources such as the SER, technical specifications, quality assurance manual, and ANO-1 emergency plan, as well as non-ANO sources such as industry codes and standards, NUREGs, regulatory guides, Inspection and Enforcement bulletins, notices, generic letters, and commission orders. The ULD documentation was developed in accordance with a site-specific procedure, GES-26, "ULD Writers Guide." The ULD documentation is controlled and maintained in accordance with the applicant's Nuclear Quality Assurance Program through the implementation of a series of site procedures including NES-16, "Accident Analysis ULD and AIM Basis Document Format and Content," Procedure 5010.007, "Control of Upper Level Documents," Procedure 5010.004, "Design Document Changes," and Procedure 1000.150, "Licensing Document Maintenance." The audit team reviewed the governing procedures and determined that they presented adequate guidance for the preparation, control, and maintenance of the ULDs.

With respect to the CLQL process, the applicant's program for the development of the Q-list is described in the ANO-1 design document, ULD-0-TOP-22, "ANO Component Classification Topical." The topical report described the CLQL project which was started by the applicant in 1985 to provide information to support plant operation and in response to regulatory requirements stemming from the Salem Anticipated Transient Without Scram event (Generic Letter 83-22).

Based on the Q-level scope definition, the Q-classification implies that a structure, system, or component is designed to the Class 1 seismic standards and subject to the full scope of the nuclear quality assurance program. In addition to the Q-classification, the applicant's program defines 16 major system level intended functions (reactivity control, reactor core cooling geometry, RCS pressure boundary integrity, RCS inventory, secondary heat removal, containment isolation, containment pressure and temperature control, containment combustible gas control, indirect radioactive release, habitability, spent fuel storage control, display of event information for operator, structural integrity, interaction isolation, essential cooling, environmental support, and essential electrical support) which support the three functional criteria of the Q-scope definition. These system level intended functions presented further guidance for determining if a component performed a safety-related or non safety-related function. Results of the CLQL is maintained and controlled in the applicant's component data base in accordance with the nuclear quality assurance program through the implementation of a series of site procedures including: Procedure 1409.66, "Component Level Q-List Project

Design Review," Memorandum NEL-057-22 CLQL Project Implementation - 10 CFR50.59 Evaluation," and Impell Project Instruction 0260-098-PI-01, "Component Level Q-list Development."

During the review of the CLQL process, the audit team reviewed a sample of the System Safety Function Review Forms, which were developed by the applicant during the CLQL program to describe each plant system in terms of its safety-related and non-safety related functions as defined by the 16 major system level intended functions. In preparing the review forms, the applicant identified the specific design documentation referenced for each system including the SER Sections and individual design drawings for the system.

As part of the audit the applicant further described the process used to incorporate the information from the CLQL and ULD projects into the LRA development process. The applicant referenced ANO-1 Engineering Reports 93-R-1009-01, "ANO-1 License Renewal Project Methodology and Management Plan," and 93-R-1010-01, "ANO-1 License Renewal Integrated Plant Assessment System and Structures Screening" to describe the detailed process for developing the LRA application, and specifically the incorporation of the ULD and CLQL information into the process. These reports outlined the specific use of the ULD and CLQL within the scoping methodology and presented formal guidance for use during the implementation phase. The applicant's engineering staff were cognizant of the requirements for and use of the ULD and CLQL during the scoping development phase of the LRA project.

On the basis of discussions with the applicant's engineering staff cognizant of the scoping and screening process, and a review of selected design documentation in support of the process, the audit team concluded that the applicant's staff understood the requirements of and adequately implemented the scoping and screening methodology established in the applicant's renewal application.

Evaluation of Methodology for Identifying Structures and Components Subject to an Aging Management Review

Mechanical Components

During the audit of the ANO-1 license renewal scoping and screening process conducted by the NRC staff, the audit team reviewed the methodology used by the applicant to identify and list the mechanical components subject to an AMR as well as the applicant's technical justification for this methodology. The team also examined the applicant's results from the implementation of this methodology by reviewing an overview of the mechanical systems identified as being within the scope, a sample of evaluation boundaries drawn within those systems, the resulting components determined to be within the scope of the rule, the corresponding component-level intended functions, and the resulting list of mechanical components subject to an AMR.

The methodology for identifying mechanical components within the scope of the rule included the following steps:

- identify all systems and their intended functions that are relied upon to remain functional during and following the design basis events for which the plant must be designed;

- identify all the systems and intended functions whose failure could prevent satisfactory accomplishment of any of the intended function identified in accordance with the requirements of 10 CFR 54.4(a)(1); and

- identify all those systems and intended functions necessary to demonstrate compliance with the regulated events identified in accordance with the requirements of 10 CFR 54.4(a)(3).

Beginning with the results of the CLQL the applicant identified all the systems within the scope of license renewal. The reactor coolant system Class 1 components were added to the scope of license renewal without any additional evaluation. For the remaining systems determined to be within the scope of license renewal containing non Class 1 components, the applicant identified the system-level intended functions and evaluation boundaries using the CLQL. System drawings were used to highlight all the components for those systems included in the CLQL. The applicant sampled the components outside of the evaluation boundary to verify that no components that existed outside of the established evaluation boundaries contributed to the applicable intended functions. These mechanical components were determined to be within the scope of the rule and subject to an AMR. The applicant added the fire protection components from the F-list, station blackout components and non Q-list components whose failure could prevent satisfactory accomplishment of any of the safety-related intended functions from the S-list, equipment qualification components from the EQ-list, and ATWS components identified from the review of their commitments to 10 CFR 50.62 to the list of components requiring an AMR. The applicant reviewed their commitments to the requirement of 10 CFR 50.61, and found no additional components were needed to be added to the scope of license renewal for Pressurized Thermal Shock.

The applicant then determined which components performed their intended function(s) with moving parts or with a change in configuration or properties using the requirements of the rule and the guidance in NEI 95-10, or the components that were replaced on the basis of qualified life or specified time period. Active or short-lived components were removed from list of components requiring an AMR. The applicant then developed a generic guide using BAW-2270, “Non-Class 1 Implementation Guideline and Mechanical Tools,” for the determination of applicable aging effects. The mechanical tools include a list of the types of mechanical components that are in the scope of license renewal, a description of the development of material and environment based rules to address aging effects, and guidance on demonstration of aging management as described in Sections 2.3 and 3.3.2, 3.3.3, 3.3.4, and 3.3.5 of this SER.

Structures

During the audit of the ANO-1 license renewal scoping and screening process, the staff also examined the applicant’s results from the implementation of this methodology by reviewing the structural components identified as being within the scope, the corresponding structural-level intended functions, and the resulting list of structural components subject to an AMR.

The applicant performed a review of all CLQL, F-list , S-list, EQ-list and ATWS components that were determined to be within the scope of license renewal and subject to an AMR, and

determined each structure that contains any of these components as being within the scope of license renewal and subject to an AMR. The only identified exception is the turbine building. Although the turbine building does not contain components subject to an AMR, the shared wall between the auxiliary building and the turbine building is designated as a turbine building wall on site drawing. As a result of this unique configuration, the shared wall of the turbine building is designated as being within the scope of license renewal and subject to an AMR. In addition, a number of fire doors and walls required by 10 CFR 50.48 are also located in the turbine building and are subject to an AMR. Because components required under 10 CFR 50.48 are not required to be seismically qualified, there was no need to include the turbine building itself in the scope of license renewal because of individual fire protection components.

After identifying the structures and structural components subject to an AMR, the applicant identified the applicable aging effects using the review of the industry experience completed by the B&W Owners Group (B&WOG) Generic License Renewal Program (GLRP). The review resulted in report BAW-2279P, "Aging Effects for Structures and Structural Components", commonly known as the structural tools. This report evaluates materials and environments that are relevant to ANO-1. Accordingly, the report was utilized in the development of ANO-1's AMRs for structures within the scope of license renewal.

To facilitate the identification of aging effects, for the passive, long-lived structural components and/or commodities subject to an AMR, these structural components and/or commodities were divided into the following major groups:

- steel;
- threaded fasteners;
- concrete;
- fire barriers;
- elastomers;
- earthen structures, and/or;
- teflon.

An aging effect evaluation was then performed for each material group. The evaluation included:

- identification of in-scope components and commodities on the basis of material type(s);
- determination of whether in-scope components and commodities are long-lived and thus, subject to an AMR;
- identification of plant operating environments;
- determination of applicable aging effects; and
- demonstration of the adequacy of AMPs.

The AMRs utilize the methodology of the BAW-2279P along with existing industry experience to perform the aging effect evaluation. Only those materials and environments that were determined to result in potential aging effects are evaluated in the AMRs. Potential aging effects identified by this review were determined to be applicable if a plant specific material and environment matched the material and environment of the potential aging effect.

Site specific AMRs (engineering reports 93-R-1015 series) were prepared for each of the major structures within the scope of license renewal (reactor building, reactor building internals, auxiliary building, and the intake structure). Other reports were prepared to document the review of earthen embankments (emergency cooling pond, intake/discharge canals) and yard structures. A separate report entitled "bulk commodities" was prepared to document the review of non-building-specific structural commodities (piping supports, cable trays, electrical cabinets, etc.). The structural AMR reports are formatted to provide the scope, materials of construction, operating environments, potential/applicable aging effects, and a demonstration that the effects of aging are managed as described in Sections 2.4 and 3.3.6 of this SER.

Electrical Components

During the audit of the ANO-1 license renewal scoping and screening process, the staff also evaluated the implementation of this methodology by reviewing the list of electrical components subject to an AMR.

The audit team reviewed the methodology described in the LRA, Section 2.5.3, entitled "Screening of Electrical SSCs." The audit team also reviewed ANO-1 engineering report 93-R-1017-0, which described the electrical AMR process. The applicant used the action plan for the generic plant spaces and commodity evaluation methodology developed by the B&WOG GLRP electrical review group. Passive long-lived electrical components were categorized and segregated primarily using the NEI 95-10 suggested categorization as a guide.

To review passive electrical components, the applicant utilized a combination of the "plant spaces" and "commodity" grouping approaches as listed in the Sandia Report, "Aging Management Guideline for Commercial Nuclear Power Plants - Electrical Cable and Terminations" as described in Sections 2.5 and 3.3.7 of this SER.

The applicant prepared site-specific engineering reports to document the review of the passive electrical components in the scope of license renewal. The primary engineering report for the electrical components (93-R-1017-01) identifies the component types that were considered in the scope of license renewal, and the application of the Sandia plant spaces and commodity grouping approaches. A series of screening reports were also prepared to identify the passive electrical components in the scope of license renewal that were exposed to the significant stressors identified in the Sandia Report. Plant walk-downs were completed as required to identify localized hot spots. Screening of components was performed utilizing the site component (SIMS and WMS) and the cable (PDMS) databases. The applicant then used the intended functions from the scope activities, identified the aging effects and performed an AMR consistent with GLRP action plan.

In summary, the combination of the Sandia Report, "Aging Management Guideline for Commercial Nuclear Power Plants - Electrical Cable and Terminations," and the site-specific ANO-1 engineering reports (93-R-1017 series) document the AMRs for the ANO-1 passive electrical components in the scope of license renewal.

IV. Conclusions

On the basis of the review described above, the staff finds that there is reasonable assurance that the applicant's methodology for identifying the systems, structures, and component within the scope of license renewal and structures and components subject to an AMR is consistent with the requirements of 10 CFR 54.4 and 10 CFR 54.21(a)(1), respectively.

V. References

1. ANO Unit 1 and 2 ANO Component Classification Topical, ULD-0-TOP-22, Revision 0

2. ANO-1 License Renewal Project Methodology and Management Plan, 93-R-1009-01, Revision 0

3. ANO-1 License Renewal Integrated Plant Assessment System and Structures Screening, 93-R-1010-01, Revision 0

4. Letter from C. Randy Hutchinson, Entergy Operations, Inc., to the US Nuclear Regulatory Commission, "Response to NRC Request Under 10CFR50.54(f) Regarding Adequacy and Availability of Design Bases Information." February 7, 1997.

5. NEI 95-10, Industry Guideline for Implementing the Requirements of 10 CFR Part 54 — The License Renewal Rule, Revision 0

6. NRC Generic Aging Lessons Learned Report (GALL)

7. Procedure GES-26, ULD Writers Guide, Revision 1

8. Procedure NES-16, "Accident Analysis ULD and AIM Basis Document Format and Content," Revision 1

9. Procedure 1000.150, "Licensing Document Maintenance," Revision 2

10. Procedure 1409.66, "Component Level Q-List Project Design Review," Revision 0

11. Procedure 5010.004, "Design Document Changes," Revision 3

12. Procedure 5010.007, "Control of Upper Level Documents," Revision 3

13. Standard Review Plan for the Review of License Renewal Applications for Nuclear Power Plants, Working Draft, April 21, 2000

IQMB COVER PAGE

QUALITY ASSURANCE AND SAFETY ASESSMENT SECTION

DOCUMENT TITLE: C:\ano audit report.wpd

ORIGINATOR: GREGORY GALLETTI

SECRETARY: DTwigg

DATE: Wednesday, December 27, 2000

●●● ROUTING LIST ●●●

	NAME	DATE
1.	GGALLETTI	
2.	RMCINTYRE	
3.	TQUAY	
4.		
5.	SECRETARY/DISPATCH	

DOCUMENT DISPATCHED:

ADAMS ACCESSION #: ML
TEMP=NRR-

□ DRAFT or □ FINAL Folder: □ DIPM □ IOLB □ IRSS □ IOHS □ Other _____	Security Rights: Owner = X NRR-DIPM SECRETARIES □ Other Viewer = □ NRC Users □ Restricted to _____ Author = □ □ Others _____
Document Type: □ Memo □ Letter □ Technical Input Document □ Other SECY PAPER	Case/Reference #: (TAC, WITs, Yellow Ticket, etc.)
Document Sensitivity: □ Non-Sensitive □ Sensitive (privacy act, proprietary, confidential, pre-decisional) (□ Copyright)	Availability: □ Non-Publicly Available OR □ Publicly Available
Keywords: (Include Template #) TEMP=NRR-	Comments: