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10 CFR 50.54(a)(4)

OCAN042101
CNRO-2021-00012

April 5, 2021

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Response to Request for Additional Information
Reduction of Commitment to the Entergy Operation's
Quality Assurance Program Manual Description

Arkansas Nuclear One, Units 1 and 2
NRC Docket Nos. 50-313, 50-368, and 72-13
Renewed Facility Operating License Nos. DPR-51 and NPF-6

By Reference 1, Entergy Operations, Inc. (Entergy) submitted a request to the U.S. Nuclear Regulatory Commission (NRC) for approval of a revision to the Entergy Quality Assurance Program Manual (QAPM), Revision 39, for Arkansas Nuclear One, Units 1 and 2 (ANO-1 and ANO-2). The proposed revision results in a reduction in commitment to the previously accepted Quality Assurance (QA) program that was submitted for NRC review and approval in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," Section 50.54(a)(4).

Specifically, in Reference 1, Entergy requested that treatment of safety-related Class 2 and 3 structures, systems, and components (SSCs) identified as Low Safety Significance (LSS) in accordance with the American Society of Mechanical Engineers (ASME) Code Case N-752, "Risk-Informed Categorization and Treatment for Repair/ Replacement Activities in Class 2 and 3 Systems, Section XI, Division 1," not be required to meet the requirements of the QAPM. Instead, Entergy indicated that it would develop program elements describing treatment of these LSS SCCs to ensure continued capability and reliability of the design basis function.

The NRC staff has reviewed the application and determined that additional information is needed to complete its review (Reference 2). Enclosed is the response to the requested information.

It should be noted that the current revision of the Entergy's QAPM is Revision 40. Revision 40 does not impact the proposed change.

No new regulatory commitments are included in this submittal.

If there are any questions or if additional information is needed, please contact Riley Keele, Manager, Regulatory Assurance, Arkansas Nuclear One, at 479-858-7826.

Respectfully,

ORIGINAL SIGNED BY RON GASTON

Ron Gaston

RWG/rwc

- Reference:
1. Entergy Operations, Inc. (Entergy) letter to the U. S. Nuclear Regulatory Commission (NRC), "Reduction of Commitments to the Entergy Operation's Quality Assurance Program Manual Description," (OCAN102002), dated October 26, 2020 (ML20300A324)
 2. NRC email to Riley Keele (Entergy), "ANO-1 and ANO-2 – Final RAI RE: Proposed Change to Quality Assurance Program Manual" (EPID L-2020-LLQ-0005), dated March 10, 2021

Enclosure: Response to Request for Additional Information

Attachments to Enclosure:

1. Quality Assurance Program Manual Page Markup
2. Retyped Quality Assurance Program Manual

cc: NRC Region IV Regional Administrator
NRC Senior Resident Inspector – Arkansas Nuclear One
NRC Project Manager – Arkansas Nuclear One
Designated Arkansas State Official

ENCLOSURE

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RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

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By Reference 1, Entergy Operations, Inc. (Entergy) submitted a request to the U.S. Nuclear Regulatory Commission (NRC) for approval of a revision to the Entergy Quality Assurance Program Manual (QAPM), Revision 39, for Arkansas Nuclear One, Units 1 and 2 (ANO-1 and ANO-2). The proposed revision results in a reduction in commitment to the previously accepted Quality Assurance (QA) program that was submitted for NRC review and approval in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," Section 50.54(a)(4).

Specifically, the licensee's submittal requested that treatment of safety-related Class 2 and 3 structures, systems, and components (SSCs) identified as Low Safety Significance (LSS) in accordance with the American Society of Mechanical Engineers (ASME) Code Case N-752, "Risk-Informed Categorization and Treatment for Repair/ Replacement Activities in Class 2 and 3 Systems, Section XI, Division 1," not be required to meet the requirements of the QAPM. Instead, Entergy would develop program elements describing treatment of these LSS SCCs to ensure continued capability and reliability of the design basis function.

The NRC staff has reviewed the application and determined that the information below is needed to complete its review (Reference 2).

Regulatory Basis

Appendix A, "General Design Criteria (GDC) for Nuclear Power Plants," General Design Criterion 1, "Quality Standards and Records," to 10 CFR Part 50, states, in part, that "Structures, systems, and components important to safety shall be designed, fabricated, erected, and tested to quality standards commensurate with the importance of the safety functions to be performed. Where generally recognized codes and standards are used, they shall be identified and evaluated to determine their applicability, adequacy, and sufficiency and shall be supplemented or modified as necessary to assure a quality product in keeping with the required safety function. A quality assurance program shall be established and implemented in order to provide adequate assurance that these structures, systems, and components will satisfactorily perform their safety functions."

ANO-1 and ANO-2 were designed and constructed to meet the intent of the GDC of the Atomic Energy Commission (AEC) as originally proposed in July 1967. Thus, ANO design and construction were initiated and proceeded to a significant extent based upon the criteria proposed in 1967. Section 1.4, "General Design Criteria," of the ANO-1 Safety Analysis Report (SAR) (ADAMS Accession No. ML17297B948) describes the manner in which the ANO-1 GDC meets the intent of the corresponding GDC published as Appendix A to 10 CFR Part 50, in 1971. Section 3.1, "Conformance with AEC General Design Criteria," of the ANO-2 SAR (ADAMS Accession No. ML19282B426) describes the manner in which the ANO-2 GDC meets the intent of the corresponding GDC published as Appendix A to 10 CFR Part 50 in 1971.

Request for Additional Information (RAI)-1

Page 4 in Enclosure 2 of the submittal states, in part:

Based on Code Case N-752, Entergy is proposing to procure Class 2 and 3 LSS items as non-safety-related when used in repair/replacement activities performed in accordance with Entergy's Code Case N-752 Risk-Informed Repair/Replacement Program. While this is the case, Entergy engineering will specify supplemental procurement requirements and controls, as appropriate, to confirm with reasonable confidence that Class 2 and 3 LSS items remain capable of performing their safety-related functions under design-basis conditions. ...

Provide a detailed description of the supplemental procurement requirements and controls that will be specified by Entergy Engineering to confirm with reasonable assurance that Class 2 and 3 LSS SSCs will remain capable of performing their intended safety-related functions under design basis conditions. In addition, clarify whether these supplemental procurement requirements and controls will be documented in the procedures governing the treatment of Class 2 and 3 LSS SSCs under Code Case N-752. Also, confirm that the proposed revision to the QAPM will accurately reflect that current processes and procedures will be used for the treatment of the LSS SCCs, rather than suggest that program elements will be developed.

Entergy's Response

Entergy will implement supplemental procurement controls and measures, as appropriate, to confirm with reasonable confidence that Class 2 and 3 LSS items remain capable of performing their safety-related functions under design-basis conditions. These supplemental procurement controls and measures will be specified in procedures which govern procurement of Class 2 and 3 LSS items. Such controls and measures will include requirements to develop technical and quality requirements and perform receipt inspections using qualified inspection personnel similar to the Entergy requirements used for procuring augmented quality SSCs.

Regarding Entergy's proposed revision to the QAPM, new paragraph A.7.c has been revised to accurately reflect that the current processes and procedures will be used for treatment of LSS SSCs. The revision to the proposed change is in the last sentence which now reads:

Instead, program elements describing treatment of these LSS SSCs are specified by Engineering to ensure the continued capability and reliability of the SSCs design basis function.

See Attachment 1 for the marked-up page. Attachment 2 includes clean (revised) copy of the proposed change.

It should be noted that the current revision of the Entergy's QAPM is Revision 40. Revision 40 does not impact the proposed change.

References

1. Entergy Operations, Inc. (Entergy) letter to the U. S. Nuclear Regulatory Commission (NRC), "Reduction of Commitments to the Entergy Operation's Quality Assurance Program Manual Description," (0CAN102002), dated October 26, 2020 (ML20300A324)
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ENCLOSURE, ATTACHMENT 1

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QUALITY ASSURANCE PROGRAM MANUAL PAGE MARKUP
(1 Page)

A. (continued)**7. Regulatory Commitments**

- a. Except where alternatives are identified, Entergy complies with the QA guidance documents listed on Table 1. If the guidance in one of these documents is in conflict with the QAPM, the guidance provided in the QAPM is the controlling guidance. Additionally, the following clarifications apply to all guidance documents listed in Table 1:
 1. For modifications and nonroutine maintenance, guidance applicable to construction-like activities is applicable to comparable plant activities. Except that the inspection of modifications, repairs, rework, and replacements shall be in accordance with the original design and inspection requirements or a documented approved alternative.
 2. The definitions provided by Regulatory Guide 1.74 and associated clarifications as described in Table 1 apply wherever the defined term is used in the QAPM and associated guidance documents.
 3. Clarification to a guidance document applies wherever the guidance document is invoked.
 4. In each of the ANSI standards, other documents (e.g., other standards, codes, regulations, tables, or appendices) are referenced or described. These other documents are only quality assurance program requirements if explicitly committed to in the QAPM. If not explicitly committed to, these documents are not considered as quality assurance program requirements, although they may be used as guidance.
 5. Guidance applicable to safety related items and activities is applicable to comparable items and activities controlled by 10 CFR 72 and transportation packages controlled by 10 CFR 71.
- b. The NRC is to be notified of QAPM changes in accordance with 10 CFR 50.54(a)(3) or 10 CFR 50.54(a)(4).
- c. For those sites who have received NRC authorization to use the alternative repair/replacement categorization and treatment requirements of Code Case N-752 in lieu of the corresponding sections of ASME Section XI, as referenced in 10 CFR 50.55a Codes and Standards, treatment of safety-related structures, systems, and components (SSCs) identified as low safety significant (LSS) Class 2 and 3 SSCs in accordance with ASME Code Case N-752 is not required to meet the requirements of this manual. Instead, program elements describing treatment of these LSS SSCs are specified by Engineering to ensure the continued capability and reliability of the SSCs design basis function.

ENCLOSURE, ATTACHMENT 2

0CAN042101

RE-TYPED QUALITY ASSURANCE PROGRAM MANUAL PAGE
(1 Page)

A. (continued)**7. Regulatory Commitments**

- a. Except where alternatives are identified, Entergy complies with the QA guidance documents listed on Table 1. If the guidance in one of these documents is in conflict with the QAPM, the guidance provided in the QAPM is the controlling guidance. Additionally, the following clarifications apply to all guidance documents listed in Table 1:
 1. For modifications and nonroutine maintenance, guidance applicable to construction-like activities is applicable to comparable plant activities. Except that the inspection of modifications, repairs, rework, and replacements shall be in accordance with the original design and inspection requirements or a documented approved alternative.
 2. The definitions provided by Regulatory Guide 1.74 and associated clarifications as described in Table 1 apply wherever the defined term is used in the QAPM and associated guidance documents.
 3. Clarification to a guidance document applies wherever the guidance document is invoked.
 4. In each of the ANSI standards, other documents (e.g., other standards, codes, regulations, tables, or appendices) are referenced or described. These other documents are only quality assurance program requirements if explicitly committed to in the QAPM. If not explicitly committed to, these documents are not considered as quality assurance program requirements, although they may be used as guidance.
 5. Guidance applicable to safety related items and activities is applicable to comparable items and activities controlled by 10 CFR 72 and transportation packages controlled by 10 CFR 71.
- b. The NRC is to be notified of QAPM changes in accordance with 10 CFR 50.54(a)(3) or 10 CFR 50.54(a)(4).
- c. For those sites who have received NRC authorization to use the alternative repair/replacement categorization and treatment requirements of Code Case N-752 in lieu of the corresponding sections of ASME Section XI, as referenced in 10 CFR 50.55a Codes and Standards, treatment of safety-related structures, systems, and components (SSCs) identified as low safety significant (LSS) Class 2 and 3 SSCs in accordance with ASME Code Case N-752 is not required to meet the requirements of this manual. Instead, program elements describing treatment of these LSS SSCs are specified by Engineering to ensure the continued capability and reliability of the SSCs design basis function.