



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 21, 2020

ANO Site Vice President
Arkansas Nuclear One
Entergy Operations, Inc.
N-TSB-58
1448 S.R. 333
Russellville, AR 72802

SUBJECT: ARKANSAS NUCLEAR ONE, UNIT 1 - AUDIT PLAN IN SUPPORT OF REVIEW OF LICENSE AMENDMENT REQUEST CONCERNING REPLACEMENT OF REACTOR BUILDING SPRAY SODIUM HYDROXIDE ADDITIVE WITH A PASSIVE REACTOR BUILDING SUMP BUFFERING AGENT SODIUM TETRABORATE DECAHYDRATE (EPID L-2020-LLA-0036)

Dear Sir or Madam:

By letter dated February 24, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20056D591), Entergy Operations, Inc. (Entergy) submitted a license amendment request (LAR) for Arkansas Nuclear One, Unit 1 (ANO-1), regarding revisions to ANO-1 Technical Specification 3.6.6, "Spray Additive System." Specifically, the proposed amendment would replace the current reactor building spray sodium hydroxide additive with a passive reactor building sump buffering agent, sodium tetraborate decahydrate.

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed Entergy's LAR and determined that a regulatory audit would assist in the timely completion of the review. The NRC staff will conduct a regulatory audit to support its review in accordance with the enclosed audit plan. A regulatory audit is a planned activity that includes the examination and evaluation of primarily non-docketed information.

The audit will be conducted to increase the NRC staff's understanding of the LAR and identify information that will require docketing to support the NRC staff's regulatory findings. The audit will be conducted from April 21, 2020, to September 30, 2020, through an online portal (also known as electronic portal, ePortal, or electronic reading room) established by Entergy. The enclosed audit plan was discussed with your staff on April 14, 2020.

If you have any questions, please contact me at (301) 415-4037 or by e-mail at Thomas.Wengert@nrc.gov.

Sincerely,

/RA/

Thomas J. Wengert, Senior Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-313

Enclosure:
Audit Plan

cc: Listserv

REGULATORY AUDIT PLAN
TO SUPPORT REVIEW OF LICENSE AMENDMENT REQUEST
CONCERNING REPLACEMENT OF REACTOR BUILDING SPRAY SODIUM
HYDROXIDE ADDITIVE WITH A PASSIVE REACTOR BUILDING SUMP
BUFFERING AGENT SODIUM TETRABORATE DECAHYDRATE
ARKANSAS NUCLEAR ONE, UNIT 1
DOCKET NO. 50-313

1.0 BACKGROUND

By letter dated February 24, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20056D591), Entergy Operations, Inc. (Entergy, the licensee) submitted a license amendment request (LAR) for Arkansas Nuclear One, Unit 1 (ANO-1), regarding revisions to ANO-1 Technical Specification 3.6.6, "Spray Additive System." Specifically, the proposed amendment would replace the current reactor building (RB) spray sodium hydroxide additive with a passive RB sump buffering agent, sodium tetraborate decahydrate.

The U.S. Nuclear Regulatory Commission (NRC) staff has determined the need for a regulatory audit to be conducted in accordance with Office of Nuclear Reactor Regulation Office Instruction LIC-111, Revision 1, "Regulatory Audits" (ADAMS Accession No. ML19226A274), for the NRC staff to examine the licensee's non-docketed information with the intent to gain a better understanding of the LAR, to verify information, and to identify information that may require docketing to support the basis of the NRC staff's licensing decision.

2.0 REGULATORY AUDIT BASIS

The NRC staff (i.e., audit team) will perform the audit to support its evaluation of whether the licensee's request meets the requirements of Section 50.36(c)(2), "Limiting conditions for operation," Section 50.36(c)(3), "Surveillance requirements," and Section 50.67, "Accident source term," of Title 10 of the *Code of Federal Regulation* and continues to meet the plant-specific principal design criteria related to the functional requirements of the RB spray additive system described in the ANO-1 Safety Analysis Report.

3.0 REGULATORY AUDIT SCOPE AND METHODOLOGY

The audit team will review the licensee's analyses and calculations supporting the technical specification changes related to the proposed replacement of the current RB spray sodium hydroxide additive with a passive RB sump buffering agent, sodium tetraborate decahydrate. The audit team will use this review to determine if the licensee needs to submit any additional information contained in the analyses and calculations performed in support of the requested change to support or develop conclusions for the NRC staff's safety evaluation.

4.0 INFORMATION AND OTHER MATERIAL NECESSARY FOR THE REGULATORY AUDIT

The NRC staff requests that the licensee have the following information readily available and accessible for the NRC staff's review via an internet-based portal:

Calculations and analyses performed that support the change in buffer and the resulting post-LOCA sump pH, including:

- Alternate buffer evaluation
- Design-basis analysis reevaluation (including radiological reanalysis or the evaluation of the impact of the change on the current radiological analysis, if applicable)
- Decay heat and RB spray pump net positive suction head
- Post-accident containment water level
- Containment net free internal volume
- Containment building post-LOCA hydrogen
- Reactor building surface areas for heat sink and hydrogen generation

Based on the review of the above documents, the NRC staff will determine whether it needs to request any additional documents to be made available on the portal or whether additional information needs to be submitted on the docket for the staff to complete the review of the requested changes.

5.0 TEAM ASSIGNMENTS

The audit team will consist of the following NRC staff:

- Alexander Chereskin, Team Leader and Chemical Engineer
- Chang Li, Senior Safety and Plant Systems Engineer
- Mark Blumberg, Senior Reactor Engineer
- Thomas Wengert, Project Manager

6.0 LOGISTICS

The audit will be conducted from April 21, 2020, to September 30, 2020, through an online portal (also known as electronic portal, ePortal, electronic reading room) established by Entergy.

If requested, the audit team will conduct a telephone conference with the licensee for the purposes of introducing the team, discussing the scope of the audit, and describing the information to be made available on the internet portal. The audit team will also confirm with the licensee if the information made available on the online portal contains any sensitive or proprietary information. The audit team may request that representatives of Entergy answer audit team questions during the audit related to information provided on the portal at a mutually agreeable day and time by telephone conference.

The NRC staff does not foresee the need for an onsite visit or in-person discussions between the NRC and licensee staff to discuss information to be provided on the portal at this time. However, if the need for a such a meeting is identified in the future, the audit plan will be revised, and the schedule for the audit will be adjusted accordingly. The NRC project manager will coordinate any changes to the audit schedule and location with the licensee.

7.0 SPECIAL REQUESTS

The audit team would like access to the documents listed in Section 4.0 above through an online portal (also known as eDocs, electronic reading room, ePortal) that allows the audit team to access documents via the internet. The following conditions associated with the online portal must be maintained throughout the duration that the audit team has access to the online portal:

- The online portal will be password-protected, and separate passwords will be assigned to the NRC staff and contractors who are participating in the audit.
- The online portal will be sufficiently secure to prevent the NRC staff and contractors from printing, saving, downloading, or collecting any information on the online portal.
- Conditions of use of the online portal will be displayed on the login screen and will require acknowledgement by each user.

User name and password information should be provided directly to the NRC staff and contractors. The NRC project manager will provide to Entergy the names and contact information of the NRC staff and contractors who will be participating in the audit. All other communications should be coordinated through the NRC project manager.

8.0 DELIVERABLES

An audit summary, which may be public, will be prepared within 60 days of the completion of the audit. If the NRC staff identifies information during the audit that is needed to support its regulatory decision, the NRC staff will issue requests for additional information to the licensee.

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RidsRgn4MailCenter Resource
A. Chereskin, NRR
M. Blumberg, NRR
C. Li, NRR

ADAMS Accession No. ML20104C039

***by e-mail**

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DATE	04/14/2020	04/14/2020	04/14/2020	04/20/2020
OFFICE	NRR/DSS/SCP/BC*	NRR/DORL/LPL4/BC*	NRR/DORL/LPL4/PM*	
NAME	BWittick	JDixon-Herrity	TWengert	
DATE	04/15/2020	04/21/2020	04/21/2020	

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