

OCAN062301

10 CFR 2.201

June 26, 2023

ATTN: Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Status of Actions to Return Arkansas Nuclear One Units 1 and 2 to Compliance

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

Reference: 1) NRC letter to Entergy, "Notice of Violation, NRC Inspection Report 05000313/2022011 and 05000368/2022011," (OCNA112203) (ML22301A153), dated November 9, 2022
2) Entergy Operations, Inc. letter to U. S. Nuclear Regulatory Commission, "Response to Notice of Violation," (ADAMS Accession No. ML22342B267), dated December 8, 2022

In Reference 1, the NRC issued Entergy Operations, Inc. (Entergy) a green Notice of Violation (NOV) for Arkansas Nuclear One (ANO) for failure to manage the effects of aging on the buried Unit 1 and Unit 2 Service Water supply piping as required by regulatory requirements. Specifically, when managing the effects of aging, the licensee has not performed thickness measurements of its buried in-scope Emergency Cooling Pond supply piping and provided reasonable assurance that the Service Water system remains capable of performing its design function.

In Reference 2, Entergy provided a written response identifying the reasons for the violation, the corrective steps that had been taken and results achieved, the corrective steps that would be taken, and the date when full compliance would be achieved.

This letter provides the NRC with the status of actions taken to return Arkansas Nuclear One Units 1 and 2 to compliance.

There are no new commitments contained in this submittal. Should you have any questions, or require additional information, please contact Mr. Riley Keele at 479-858-7826.

Sincerely,

A handwritten signature in black ink, appearing to read 'JCS/ble', followed by a long horizontal line extending to the right.

JCS/ble

Enclosure: Status of Actions to Return Arkansas Nuclear One Units 1 and 2 to Compliance

cc: NRC Region IV Regional Administrator
NRC Senior Resident Inspector – Arkansas Nuclear One
NRC Project Manager – Arkansas Nuclear One
R4Enforcement@nrc.gov

Enclosure

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Status of Actions to Return Arkansas Nuclear One Units 1 and 2 to Compliance

In Reference 1, the NRC issued Entergy Operations, Inc. (Entergy) a green Notice of Violation (NOV) for Arkansas Nuclear One (ANO) for failure to manage the effects of aging on the buried Unit 1 and Unit 2 Service Water supply piping as required by regulatory requirements. Specifically, when managing the effects of aging, the licensee has not performed thickness measurements of its buried in-scope Emergency Cooling Pond (ECP) supply piping and provided reasonable assurance that the Service Water system remains capable of performing its design function.

In Reference 2, Entergy provided a written response identifying the reasons for the violation, the corrective steps that had been taken and results achieved, the corrective steps that would be taken, and the date when full compliance would be achieved.

As part of the NOV response, Entergy provided the following commitments to restore full compliance by the completion of ANO-2 Refueling Outage 2R29:

- Entergy will revise the Microbiological Influenced Corrosion (MIC) Program (SEP-MIC-ANO-001) to provide clarification and confirmation that MIC-susceptible buried piping will be included in the inspection scope. Scheduled completion date March 17, 2023.
- MIC program qualification requirements will be completed for the current MIC Program Owner and a backup engineer. Scheduled completion date April 14, 2023.
- Entergy will perform a non-destructive examination inspection of the Arkansas Nuclear One, Unit 2 Emergency Cooling Pond supply piping during the upcoming 2R29 refueling outage. Scheduled completion date End of 2R29.

Actions taken to date:

- During the ANO-1 fall 2022 refueling outage (1R30), Entergy performed non-destructive examination (NDE) of the Unit 1 Service Water ECP supply piping utilizing automated ultrasonic testing (AUT). The results of the AUT showed that no indications were observed below the critical thickness acceptance criteria. The remaining service life calculation was determined to be 10.27 years and the next inspection would need to occur during refueling outage 1R36, currently scheduled in fall 2031.
- Weaknesses related to the Plant Health Committee oversight were addressed in the causal evaluation performed for ANO condition report CR-ANO-C-2021-3247. This condition report was written in 2021 prior to the Notice of Violation and identified gaps in the station's monitoring for possible degradation of the Emergency Cooling Pond supply piping by the MIC and Buried Piping programs. Corrective actions included improvements in the Plant Health Committee oversight of the deferral of projects to ensure the basis for the deferral was acceptable and that any bridging strategy needs were appropriately implemented.
- Revision 4 to SEP-MIC-ANO-001 was approved and implemented on March 14, 2023 to include clarification and confirmation that MIC-susceptible buried piping will be included in the inspection scope.
- The ANO MIC Program owner completed MIC Program qualification on April 5, 2023. The Entergy Corporate MIC program owner was established as the ANO backup MIC Program owner. This individual had previously completed MIC Program qualifications on January 20, 2022. Additionally, MIC Program qualifications were assigned to two members of the ANO Engineering staff. One of these staff members is the current ANO Unit 1 and Unit 2 Service Water System Engineer.

- During the ANO-2 spring 2023 refueling outage (2R29), Entergy performed non-destructive examination (NDE) of the Unit 2 Service Water ECP supply piping. The results showed that no indications were observed below the critical thickness acceptance criteria. The remaining service life calculation was determined to be 8.35 years and the next inspection would need to occur during refueling outage 2R34, currently scheduled in fall 2030.
- The ANO MIC Program database tracks the next inspections for the ANO-1 and ANO-2 Service Water ECP supply piping per the respective remaining service life calculations.

Summary

Entergy has completed NDE examinations for the ANO-1 and ANO-2 Service Water ECP supply piping and completed remaining service life calculations based on these results, corrected programmatic gaps associated with this piping via improvements in the oversight of the Plant Health Committee and revisions to MIC Program guidance, and has completed qualifications for a primary and backup MIC Program owner with additional Engineering staff assigned to complete qualifications. Based on these actions, Entergy has restored compliance to manage the effects of aging for the ANO-1 and ANO-2 buried in-scope Emergency Cooling Pond supply piping and provided reasonable assurance that the Service Water system remains capable of performing its design function.