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0CAN062503 10 CFR 2.201

June 02, 2025

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

Subject: Update to 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

References:
1) NRC letter to Entergy, "Notice of Violation, NRC Inspection Report 05000313/2022011 and 05000368/2022011," (0CNA112203) (ML22301A153), dated November 9, 2022.
2) Entergy Operations, Inc. letter to U. S. Nuclear Regulatory Commission, "Response to Notice of Violation," (0CAN122201) (ML22342B267), dated December 8, 2022.
3) Entergy Operations, Inc. letter to U. S. Nuclear Regulatory Commission, "Status of Actions to Return Arkansas Nuclear One Units 1 and 2 to Compliance," (0CAN062301) (ML23177A077), dated June 6, 2023.

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 had 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 reason(s) 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.

In Reference 3, Entergy provided the NRC with the status of actions taken to return ANO Units 1 and 2 to compliance.

During subsequent inspection activities by the NRC, it was determined that revisions to the service life calculations for the Unit 1 and Unit 2 Service Water ECP supply piping were required. This letter provides the revised service life calculations as discussed in Reference 3 under "Actions taken to date."

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,

DEP/rdk

Enclosure: Update to 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

0CAN062503

Update to 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 had 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 reason(s) 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.

In Reference 3, Entergy provided the NRC with the status of actions taken to return ANO Units 1 and 2 to compliance. This letter indicated that compliance had been restored.

During subsequent inspection activities by the NRC, it was determined that revisions to the service life calculations for the Unit 1 and Unit 2 Service Water ECP supply piping were required. This letter provides the revised service life calculations as discussed in Reference 3 under "Actions taken to date."

<u>Revisions to Service Life Calculations</u>

In Reference 3, first bullet, Entergy provided the following information related to the results of non-destructive examination testing and the calculated service life determination for the ANO Unit 1 (ANO-1) Service Water ECP supply piping:

- 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. <u>*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. (emphasis added)*</u>

After performing a new service life calculation for the ANO-1 Service Water ECP supply piping, the following revised information is provided:

> <u>The remaining service life calculation was determined to be 21.5 years and the next inspection would need to occur during refueling outage 1R43, currently projected to occur in the spring of 2042.</u>

In Reference 3, fifth bullet, Entergy provided the following information related to the results of non-destructive examination testing and the calculated service life determination for the ANO Unit 2 (ANO-2) Service Water ECP supply piping:

- 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. <u>*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. (emphasis added)*</u>

After performing a new service life calculation for the ANO-2 Service Water ECP supply piping, the following revised information is provided:

> The remaining service life calculation was determined to be 11.17 years and the next inspection would need to occur during refueling outage 2R36, currently projected to occur in the fall of 2033.

Additionally, the ANO MIC Program database tracking the next inspections for the ANO-1 and ANO-2 Service Water ECP supply piping has been updated to reflect the revised service life calculations. This tracking mechanism was discussed in Reference 3, sixth bullet.

Summary

All other actions identified in Reference 3 under "Actions taken to date" remain valid and this letter provides updates to the respective actions as discussed above. Based on these actions, Entergy concludes that it 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 systems for both units remain capable of performing their design function.