



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

July 8, 2025

ANO Site Vice President
Arkansas Nuclear One
Entergy Operations, Inc.
N-ADM-8
1448 S.R. 333
Russellville, AR 72802

SUBJECT: ARKANSAS NUCLEAR ONE, UNITS 1 AND 2 – ENVIRONMENTAL
ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT RELATED TO
EXEMPTIONS FROM THE REQUIREMENTS OF 10 CFR 50.82(a)(8)(i) and (ii)
(EPID L-2024-LLE-0030)

Dear Sir or Madam:

Enclosed is a copy of the U.S. Nuclear Regulatory Commission (NRC) staff's environmental assessment (EA) and finding of no significant impact (FONSI) related to your application for exemptions dated November 13, 2024. The requested exemptions would allow Entergy Operations, Inc. to withdraw funds from the Arkansas Nuclear One, Units 1 and 2 nuclear decommissioning trust funds, not to exceed \$20 million per unit, to facilitate the prompt disposal (i.e., during operations) of certain retired major radioactive components.

The EA and FONSI is being forwarded to the Office of the Federal Register for publication.

If you have any questions, please contact me at 301-415-8507 or via email at Hannah.McLatchie@nrc.gov.

Sincerely,

/RA/

Hannah McLatchie, Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-313 and 50-368

Enclosure:
EA and FONSI

cc: Listserv

ENCLOSURE

ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

ENTERGY OPERATIONS, INC.

ARKANSAS NUCLEAR ONE, UNITS 1 AND 2

DOCKET NOS. 50-313 AND 50-368

NUCLEAR REGULATORY COMMISSION

[Docket Nos. 50-313 and 50-368;

CEQ EAXX-429-00-000-1741333381; NRC-2025-0115]

Entergy Operations, Inc.;

Arkansas Nuclear One, Units 1 and 2;

Environmental Assessment and Finding of No Significant Impact

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of exemptions in response to the November 13, 2024, request from Entergy Operations, Inc. (the licensee) related to Arkansas Nuclear One (ANO), Units 1 and 2, located in Pope County, Arkansas. The exemptions would allow the licensee to withdraw a small portion of the funds from the ANO, Units 1 and 2, nuclear decommissioning trust funds (DTFs) to facilitate the prompt disposal of certain retired major radioactive components (MRCs). The NRC staff is issuing an environmental assessment (EA) and finding of no significant impact (FONSI) associated with the proposed exemptions.

DATES: The EA and FONSI referenced in this document are available on **[INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: Please refer to Docket ID **NRC-2025-0115** when contacting the NRC about the availability of information regarding this document. You may obtain publicly available information related to this document using any of the following methods:

- **Federal Rulemaking Website:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2025-0115**. Address questions about Docket IDs in Regulations.gov to Bridget

Curran; telephone: 301-415-1003; email: Bridget.Curran@nrc.gov. For technical questions, contact the individual listed in the “For Further Information Contact” section of this document.

- **NRC’s Agencywide Documents Access and Management System (ADAMS):**

You may obtain publicly available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select “Begin Web-based ADAMS Search.” For problems with ADAMS, please contact the NRC’s Public Document Room (PDR) reference staff at 1-800-397-4209, at 301-415-4737, or by email to PDR.Resource@nrc.gov. The ADAMS accession number for each document referenced (if it is available in ADAMS) is provided the first time that it is mentioned in this document.

- **NRC’s PDR:** The PDR, where you may examine and order copies of publicly available documents, is open by appointment. To make an appointment to visit the PDR, please send an email to PDR.Resource@nrc.gov or call 1-800-397-4209 or 301-415-4737, between 8 a.m. and 4 p.m. eastern time (ET), Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Hannah McLatchie, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-8507; email: Hannah.McLatchie@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction

The NRC is considering issuance of exemptions from the requirements in paragraphs 50.82(a)(8)(i) and (ii) of title 10 of the *Code of Federal Regulations* (10 CFR) to the licensee for Renewed Facility Operating License Nos. DPR-51 and NPF-6 for ANO, Units 1 and 2, respectively, located in Pope County, Arkansas. The licensee requested the exemptions by letter dated November 13, 2024 (ADAMS Accession No. ML24318C273). The exemptions would allow the licensee to withdraw funds from the ANO, Units 1 and 2, DTFs, not to exceed \$20 million per unit, to facilitate the prompt disposal of certain retired MRCs. Specifically, the licensee is seeking to use funds from the Unit 1 DTF to dispose of two steam generators and

one reactor vessel closure head that were removed from service in 2005, and to use funds from the Unit 2 DTF to dispose of two steam generators that were removed from service in 2000.

In accordance with 10 CFR 51.21 and 10 CFR 51.30, the NRC prepared the following EA that analyzes the environmental impacts of the proposed action. Based on the results of this EA, which is provided in section II of this document, and in accordance with 10 CFR 51.31(a), the NRC has determined not to prepare an environmental impact statement for the proposed action and is issuing a FONSI.

II. Environmental Assessment

Description of the Proposed Action

The proposed action would partially exempt the licensee from the requirements set forth in 10 CFR 50.82(a)(8)(i) and (ii). Specifically, contrary to 10 CFR 50.82(a)(8)(i), the proposed action would allow the licensee to withdraw funds from the ANO, Units 1 and 2 DTFs for disposal activities that are not consistent with the definition of decommissioning in 10 CFR 50.2 because they would not be related to removing a facility or site from service; instead, the disposal activities would be performed prior to ANO, Units 1 and 2, permanently ceasing operations. Additionally, the proposed action would allow the licensee to withdraw funds from the ANO, Units 1 and 2 DTFs contrary to the timing requirements in 10 CFR 50.82(a)(8)(ii). The proposed action is in accordance with the licensee's application dated November 13, 2024. The NRC determination of whether to approve the proposed action will be documented separately from this assessment of the environmental impacts of the proposed action.

Need for the Proposed Action

As required by 10 CFR 50.82(a)(8)(i), DTFs may be used by licensees if, in part, the withdrawals are for legitimate decommissioning activity expenses, consistent with the definition of decommissioning in 10 CFR 50.2. This definition addresses removing a facility or site from service and reducing residual radioactivity and does not include activities associated with the disposal of MRCs during plant operations. The regulation in 10 CFR 50.82(a)(8)(ii) discusses

timing requirements associated with DTF withdrawals, allowing 3 percent of the generic amount specified in 10 CFR 50.75 to be used for decommissioning planning and restricting further withdrawals until licensees have submitted the certifications required under 10 CFR 50.82(a)(1) regarding permanent cessation of operations and the post-shutdown decommissioning activities report. Therefore, exemptions from 10 CFR 50.82(a)(8)(i) and (ii) are needed to allow the licensee to use funds from the DTFs for the disposal of MRCs during plant operations. In its submittal, the licensee stated that due to limited long-term onsite storage facility capacity at ANO, it is desirable to dispose of the specified MRCs while plant operations are ongoing, rather than waiting until the permanent cessation of operations to dispose of them. Additionally, the licensee identified that the disposal of these MRCs would be considered a legitimate decommissioning activity for which DTF funds may be used once ANO, Units 1 and 2 have permanently ceased operations and the timing requirements of 10 CFR 50.82(a)(8)(ii) have been met; therefore, the exemption request is essentially seeking an acceleration of otherwise permissible DTF withdrawals.

In summary, by letter dated November 13, 2024, the licensee requested exemptions to allow the licensee to withdraw a small portion of the funds from the ANO, Units 1 and 2 DTFs to facilitate the prompt (i.e., during plant operations) disposal of certain retired MRCs.

Environmental Impacts of the Proposed Action

The proposed action involves exemptions from regulatory requirements that are of a financial nature and that do not have an impact on the environment. The proposed action does not introduce new operational activities, and all the current operational activities have already been subjected to environmental review. Additionally, before the NRC could approve the proposed action, it would have to conclude that there is reasonable assurance that funds will be available for the decommissioning process as well as for the prompt disposal of certain retired MRCs. Therefore, there would be no decrease in safety associated with the use of the DTFs to also fund the prompt disposal of certain retired MRCs. Section 50.75 of 10 CFR requires a

licensee to certify that financial assurance has been provided in the required amount, to adjust that amount annually, and to cover that amount. Since the proposed exemptions would allow the licensee to use funds from the ANO, Units 1 and 2 DTFs that are in excess of those required for the decommissioning process, the adequacy of the funds dedicated to the decommissioning process would not be affected by the exemptions. Therefore, there is reasonable assurance that there would be no environmental impact due to lack of adequate funding for the decommissioning process.

The proposed action would also not significantly increase the probability or consequences of radiological accidents. The proposed action has no direct radiological impacts. There would be no change to the types or amounts of radiological effluents that may be released; therefore, there would be no change in occupational or public radiation exposure from the proposed action. There are no materials or chemicals introduced into the plant that could affect the characteristics or types of effluents released offsite. In addition, the method of operation of waste processing systems would not be affected by the exemptions. The proposed action would not result in changes to the design basis requirements of structures, systems, and components (SSCs) that function to limit or monitor the release of effluents. All the SSCs associated with limiting the release of effluents would continue to be able to perform their functions. Moreover, no changes would be made to plant buildings or the site property from the proposed action. Therefore, there are no significant radiological environmental impacts associated with the proposed action.

With regard to potential non-radiological impacts, the proposed action would have no direct impacts on land use or water resources, including terrestrial and aquatic biota, as it involves no new construction or modification of plant operational systems. There would be no changes to the quality or quantity of non-radiological effluents. In addition, there would be no noticeable effect on socioeconomic conditions in the region, no air quality impacts, and no

impacts to historic and cultural resources from the proposed action. Therefore, there are no significant non-radiological environmental impacts associated with the proposed action.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed action.

Environmental Impacts of the Alternatives to the Proposed Action

As an alternative to the proposed action, the NRC staff considered denial of the proposed action (i.e., the “no-action” alternative). Denial of the proposed action would result in the licensee disposing of certain retired MRCs using funds other than those in the DTFs, which would have no change in current environmental impacts, or would result in the licensee building a new long-term onsite storage facility at ANO, which would have environmental impacts. Therefore, the alternative action would have similar or additional environmental impacts than the proposed action.

Alternative Use of Resources

There are no unresolved conflicts concerning alternative uses of available resources under the proposed action.

Agencies and Persons Consulted

No additional agencies or persons were consulted regarding the environmental impact of the proposed action.

III. Finding of No Significant Impact

The requested exemptions from 10 CFR 50.82(a)(8)(i) and (ii) would allow the licensee to withdraw a small portion of the funds from the ANO, Units 1 and 2 DTFs to facilitate the prompt disposal of certain retired MRCs. The proposed action would not significantly affect plant safety, would not have a significant adverse effect on the probability of an accident occurring, and would not have any significant radiological or non-radiological impacts. The proposed action involves exemptions from requirements that are of a financial nature and that would not have an impact on the human environment. Consistent with 10 CFR 51.21, the NRC conducted an EA for the proposed action, and this FONSI incorporates by reference the EA included in section II of this document. Therefore, the NRC concludes that the

proposed action will not have significant effects on the quality of the human environment. Accordingly, the NRC has determined not to prepare an environmental impact statement for the proposed action.

Other than the licensee's letter dated November 13, 2024, there are no other environmental documents associated with this review.

Previous considerations regarding the environmental impacts of operating ANO, Units 1 and 2 are described in NUREG-1437, Supplement 3, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants Regarding the Arkansas Nuclear One, Unit 1," dated April 2001 (ADAMS Accession No. ML011170034), and NUREG-1437, Supplement 19, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants Regarding Arkansas Nuclear One, Unit 2," dated April 2005 (ADAMS Accession No. ML051080538).

Dated: July 8, 2025.

For the Nuclear Regulatory Commission.

/RA/

Hannah McLatchie, Project Manager,
Plant Licensing Branch 4,
Division of Operating Reactor Licensing,
Office of Nuclear Reactor Regulation.

SUBJECT: ARKANSAS NUCLEAR ONE, UNITS 1 AND 2 – ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT RELATED TO EXEMPTIONS FROM THE REQUIREMENTS OF 10 CFR 50.82(a)(8)(i) and (ii) (EPID L-2024-LLE-0030) DATED JULY 8, 2025

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