

# POLICY ISSUE NOTATION VOTE

May 21, 2001

SECY-01-0091

FOR: The Commissioners

FROM: William D. Travers  
Executive Director for Operations

SUBJECT: ARKANSAS NUCLEAR ONE, UNIT 1, RENEWAL OF FULL-POWER  
OPERATING LICENSE

PURPOSE:

To (1) inform the Commission of the results of the NRC staff's review of the Arkansas Nuclear One, Unit 1 (ANO-1), license renewal application submitted by Entergy Operations, Inc. (the applicant or Entergy), and (2) request that the Commission authorize the Director of NRR to make the appropriate findings and renew the operating license for the ANO-1 for an additional 20 years.

BACKGROUND:

By letter dated January 31, 2000, Entergy submitted its application to renew the operating license (Reference 1) for Arkansas Nuclear One, Unit 1, in accordance with 10 CFR Parts 51 and 54. In its application, Entergy requested renewal of operating license DPR-51, which was initially issued under Section 104b of the Atomic Energy Act, for a period of 20 years beyond the current license expiration at midnight May 20, 2014.

Contact:  
Robert Prato, NRR  
415-1147

DISCUSSION:

The staff performed its safety review of the ANO-1 license renewal application in accordance with 10 CFR Part 54, using guidance in NRR Office Letter 805, "License Renewal Application Review Process," and the draft "Standard Review Plan for the Review of License Renewal Applications for Nuclear Power Plants," dated June 2000. NUREG-1743, "Safety Evaluation Report Related to the License Renewal of Arkansas Nuclear One, Unit 1" (Reference 2), describes the results of the staff's review of the scoping, screening, aging management, and time-limited aging analyses activities, in accordance with the requirements of 10 CFR Part 54.

The ANO-1 renewal application included a supplement to the Updated Final Safety Analysis Report (UFSAR), as required by 10 CFR 54.21(d). The applicant revised the UFSAR supplement in a letter dated March 14, 2001, which superseded the version in the license renewal application. The revised UFSAR supplement contains a summary description of the programs and activities for managing the effects of aging and evaluating time-limited aging analyses for the period of extended operation. The staff reviewed the revised UFSAR supplement, and found that it meets the requirements of 10 CFR 54.21(d). The applicant will include this supplement in its UFSAR prior to issuance of the renewed license; therefore, unlike previous renewed licenses, the proposed ANO-1 renewed license does not include a condition requiring change controls until the next formal update to the UFSAR. Since future changes to the UFSAR will be made in accordance with 10 CFR 50.59, the NRC is assured that these programs, maintenance activities, and inspection procedures will be adequately controlled.

The UFSAR supplement also identifies future actions. Throughout NUREG-1743, the staff describes various schedules for future actions. The staff has determined that the future actions to manage aging effectively are not required for operation during the existing license term; however, they must be completed before entering the period of extended operation. The proposed renewed license includes a license condition for the completion of these future actions. The applicant can change the schedules for these actions without prior NRC approval, provided the actions are completed in accordance with the license condition.

On the basis of its safety evaluation, as described in NUREG-1743, the staff, as provided in 10 CFR 54.29, concludes the following:

- (1) actions have been identified and have been or will be taken with respect to managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require an aging management review under 10 CFR 54.21(a)(1), and
- (2) actions have been identified and have been or will be taken with respect to time-limited aging analyses that have been identified to require review under 10 CFR 54.21(c).

Accordingly, the staff finds that there is reasonable assurance that the activities authorized by the renewed license will continue to be conducted in accordance with the current licensing basis for ANO-1.

As part of the review of the license renewal application, Region IV conducted two inspections at ANO-1 with support from Region II and NRR. The inspections were conducted in accordance with Inspection Manual Chapter 2516, "Policy and Guidance for the License Renewal Inspection Programs," and Inspection Procedure 71002, "License Renewal Inspection." As described in the memorandum from Ellis W. Merschoff, Regional Administrator NRC Region IV, dated May 7, 2001 (Reference 3), the results of these two inspections verified that there is reasonable assurance that the contents of the application, aging management programs, implementation, and other activities related to license renewal for ANO-1 are in accordance with docketed commitments and regulatory requirements.

Following the issuance of the safety evaluation report (SER) with open items on January 10, 2001 (Reference 4), the staff and applicant briefed the Advisory Committee on Reactor Safeguards (ACRS) Subcommittee on Plant License Renewal on February 22, 2001, and the ACRS Full Committee on May 10, 2001, on the SER. On May 16, 2001, the ACRS issued its "Report on the Safety Aspects of the License Renewal Application for the Arkansas Nuclear One, Units 1," documenting its review of the license renewal application and the SER. In its report (included in Chapter 5 of NUREG-1743, Reference 2), the ACRS concluded that the applicant has properly identified the systems, structures, and components (SSCs) that are subject to aging management programs according to the requirements of 10 CFR Part 54; that possible aging mechanisms associated with passive, long-lived SSCs have been appropriately identified; and, that the programs instituted to manage aging-related degradation of the identified SSCs are appropriate and provide reasonable assurance that ANO-1 can be operated in accordance with its current licensing basis for the period of the extended license without undue risk to the health and safety of the public.

The staff performed its environmental review of the ANO-1 license renewal application in accordance with 10 CFR Part 51, using the guidance described in NUREG-1555, Supplement 1, the "Standard Review Plan for Environmental Reviews for Nuclear Power Plants, Supplement 1: Operating License Renewal," dated March 2000. As required by 10 CFR 51.26, on March 10, 2000, the staff published a Notice of Intent (65 FR 13061) to prepare an environmental impact statement (EIS) and conduct scoping; this initiated a 60-day scoping period. The EIS, prepared by the staff for the ANO-1 plant-specific review, is Supplement 3 to the Generic Environmental Impact Statement (GEIS), NUREG-1437, that was codified in 10 CFR Part 51 for license renewal. Two public scoping meetings were held in April 2000 in Russellville, Arkansas. The staff also visited ANO-1 in April 2000, reviewed the comments received during scoping, reviewed related documents, and consulted with Federal, State, and local agencies. On October 5, 2000, the staff issued a draft of the SEIS (Supplement 3 to NUREG-1437), which contained the preliminary results and recommendations of the staff's evaluation. With the publication of the Environmental Protection Agency Notice of Filing of the draft SEIS (65 FR 63076 issued on October 20, 2000), the NRC initiated a 75-day public comment period on the preliminary results of the staff's review.

During the comment period, two public meetings were held in Russellville, Arkansas, in November 2000. During these meetings, the staff described the approach and results of the NRC environmental review and answered questions to assist members of the public to formulate their comments. The comment period for the draft SEIS ended on January 4, 2001.

The staff evaluated the comments received on the draft SEIS and completed its analysis, considering and weighing the environmental effects of the proposed action, the environmental impacts of alternatives to the proposed action, and the alternatives available for reducing or avoiding adverse effects. The final version of the SEIS regarding ANO-1 was issued on April 5, 2001 (Reference 5). Disposition of the public comments are contained in Appendix A of the SEIS. As discussed in Section 9.3 of the SEIS, the staff determined that on the basis of (1) the analysis and findings in the "Generic Environmental Impact Statement for License Renewal of Nuclear Power Plants," NUREG-1437; (2) the Environmental Report submitted by the applicant; (3) consultation with other Federal, State, and local agencies; (4) the staff's own independent review; and, (5) the staff's consideration of public comments, the adverse environmental impacts of license renewal for ANO-1 are not so great that preserving the option of license renewal for energy planning decision makers would be unreasonable.

In accordance with 10 CFR 54.19(b), license renewal applications include "conforming changes to the standard indemnity agreement, 10 CFR 140.92, Appendix B, to account for the expiration term of the proposed renewed license." The staff intends to keep the same license number on issuance of the renewed license. Therefore, there is no need to make conforming changes to the indemnity agreement, and the requirements of 10 CFR 54.19(b) have been met.

As a result of the staff's review of the applicant's license renewal application, the staff recommends that the Commission authorize the Director of NRR to make the appropriate findings and then issue the renewed operating license for ANO-1 for an additional 20 years.

#### COORDINATION:

The Office of the General Counsel has reviewed this paper and has no legal objections to its content.

#### RECOMMENDATION:

That the Commission:

1. Authorize the Director of NRR to renew the operating license for ANO-1, upon making the appropriate findings on safety and environmental matters.

2. Note that the staff will make any necessary conforming changes to the renewed license as a result of any pending licensing actions while the Commission is considering the staff's recommendations.

***/RA by William F. Kane Acting For/***

William D. Travers  
Executive Director  
for Operations

Attachment: Renewed License for Arkansas Nuclear One, Unit 1.

References:

1. "Arkansas Nuclear One, Unit1, License Renewal Application," dated January 31, 2000, Accession Number ML003679667.
2. "NUREG-1743, Safety Evaluation Report Related to the License Renewal of Arkansas Nuclear One, Unit 1," dated June 2001.
3. Regional Administrator Letter on "Arkansas Nuclear One, Unit 1, License Renewal Application," dated May 7, 2001, Accession Number ML011270378.
4. "Safety Evaluation Report Related to the License Renewal of Arkansas Nuclear One, Unit 1," dated April 12, 2001, Accession Number ML011020554.
5. "Generic Environmental Impact Statement for License Renewal of Nuclear Plants Regarding the Arkansas Nuclear One, Unit 1, Final Report," NUREG 1437, Supplement 3, Accession Number ML011160446.

2. Note that the staff will make any necessary conforming changes to the renewed licenses as a result of any pending licensing actions while the Commission is considering the staff's recommendations.

***/RA by William F. Kane Acting For/***

William D. Travers  
Executive Director  
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1. "Arkansas Nuclear One, Unit1, License Renewal Application," dated January 31, 2000, Accession Number ML003679667.
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3. Regional Administrator Letter on "Arkansas Nuclear One, Unit 1, License Renewal Application," dated May 7, 2001, Accession Number ML011270378.
4. "Safety Evaluation Report Related to the License Renewal of Arkansas Nuclear One, Unit 1," dated April 12, 2001, Accession Number ML011020554.
5. "Generic Environmental Impact Statement for License Renewal of Nuclear Plants Regarding the Arkansas Nuclear One, Unit 1, Final Report," NUREG 1437, Supplement 3, Accession Number ML011160446.

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SECRETARY: S Chey

DATE: April 26, 2001

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