

POLICY ISSUE

Notation Vote

February 3, 2015

SECY-15-0018

FOR: The Commissioners

FROM: Mark A. Satorius
Executive Director for Operations

SUBJECT: RENEWAL OF FULL-POWER OPERATING LICENSE FOR
CALLAWAY PLANT, UNIT 1

PURPOSE:

This paper (1) informs the Commission of the results of the U.S. Nuclear Regulatory Commission (NRC) staff's review of the license renewal application (LRA) (Ref. 1) submitted by Union Electric Company (doing business as Ameren Missouri), owner and operator of the Callaway Plant, Unit 1 (Calloway); and (2) requests that the Commission authorize the Director of the Office of Nuclear Reactor Regulation (NRR) to renew the operating license for Callaway for an additional 20 years. In the staff requirements memorandum for SECY-02-0088, "Turkey Point Nuclear Plant, Units 3 and 4, Renewal of Full-Power Operating Licenses," dated June 5, 2002, the Commission authorized the Director of NRR to renew operating licenses without prior Commission authorization "for uncontested license renewal reviews." The Callaway license renewal proceeding is a contested matter as new contentions filed on September 29, 2014, and December 8, 2014, are currently pending before the Commission.

Accordingly, the staff requests Commission approval to issue the renewed license. This paper does not address any new commitments or resource implications.

BACKGROUND:

In a letter dated December 15, 2011, Ameren Missouri submitted an application (Ref. 1) to renew the operating license for Callaway in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Part 51, "Environmental Protection Regulations for Domestic Licensing

CONTACT: John W. Daily, NRR/DLR
301-415-3873

and Related Regulatory Functions,” and 10 CFR Part 54, “Requirements for Renewal of Operating Licenses for Nuclear Power Plants.” In its submittal, Ameren Missouri requested the renewal of Operating License No. NPF-30, which was initially issued under Section 103 of the Atomic Energy Act, for a period of 20 years beyond the current license expiration of midnight October 18, 2024.

Following the submittal of the Callaway LRA by Ameren Missouri, the staff initiated its environmental and safety reviews in accordance with NRC regulations. The staff completed the safety review and presented the resulting safety evaluation report (SER), “Safety Evaluation Report Related to the License Renewal of Callaway Plant, Unit 1,” to the Advisory Committee on Reactor Safeguards (ACRS) (Ref. 2). The staff determined that Ameren Missouri has taken, or will take, appropriate actions to manage the effects of aging during the period of extended operation as reflected in modifications to the licensing basis. Therefore, the staff found 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 Callaway.

The staff performed its environmental review of the Callaway LRA and issued the final supplemental environmental impact statement (SEIS) as NRC technical report NUREG-1437, “Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 51, Regarding Callaway Plant,” on October 29, 2014 (Ref. 3). The SEIS concludes that adverse environmental impacts of license renewal for Callaway are not great enough to deny the option of license renewal for energy-planning decision makers.

DISCUSSION:

Staff Performance of Safety Review

The staff performed its safety review of the Callaway LRA in accordance with 10 CFR Part 54 using the guidance in NUREG-1800, Revision 2, “Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants,” issued December 2010. The staff issued the SER with open items in April 2013 (Ref. 4) and issued the final SER, “Safety Evaluation Report Related to the License Renewal of Callaway Plant, Unit 1,” in August 2014 (Ref. 2). The SER presents the conclusions of the staff’s review and documents the results of the scoping and screening, aging management programs, and time-limited aging analyses in accordance with the requirements of 10 CFR Part 54. The staff concluded that Ameren Missouri meets the standards for issuance of a renewed license as set by 10 CFR 54.29, “Standards for Issuance of a Renewed License.”

To support the review of the Callaway LRA, Region IV conducted an inspection at Callaway in accordance with Inspection Manual Chapter 2516, “Policy and Guidance for the License Renewal Inspection Program,” and Inspection Procedure 71002, “License Renewal Inspection.” The results of this inspection were presented in a memorandum dated July 1, 2014 (Ref. 5). The inspection verified that the contents of the application, the aging management programs, the implementation of activities required before the period of extended operation, and other activities related to the license renewal of Callaway are in substantial agreement with docketed commitments and regulatory requirements, and that there is reasonable assurance that the facility’s aging management programs provide an adequate foundation for renewing the Callaway license.

On May 22, 2014, the staff briefed the ACRS subcommittee about the staff's safety review for the Callaway license renewal. The staff briefed the ACRS full committee on the final SER on October 2, 2014. The staff discussed open items, issues, resolutions, and resulting commitments during these briefings.

On October 14, 2014, the ACRS issued its "Report on the Safety Aspects of the License Renewal Application of the Callaway Plant, Unit 1." The ACRS concluded that (on the basis of its review of the Callaway LRA, the SER, and its discussions during the ACRS briefing) the programs established and committed to by Ameren Missouri to manage aging-related degradation provide reasonable assurance that Callaway can be operated in accordance with its current licensing basis for the period of the extended operation without undue risk to public health and safety. The ACRS also concluded that the application for the renewal of the Callaway operating license should be approved.

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

Staff Performance of Environmental Review

The staff performed its environmental review of the Callaway LRA in accordance with 10 CFR Part 51 using the guidelines described in NUREG-1555, "Standard Review Plans for Environmental Reviews for Nuclear Power Plants," issued March 2000, and its Supplement 1, "Operating License Renewal," Revision 1, issued June 2013.

On February 24, 2012, the staff published a notice of intent to prepare a SEIS and conduct scoping, thus initiating a 60-day scoping period. The SEIS prepared by the staff for the plant-specific review is a supplement to the Generic Environmental Impact Statement, NUREG-1437 that was codified in 10 CFR Part 51 for license renewal. The SEIS for Callaway is Supplement 51 to NUREG-1437. The staff held two public scoping meetings on March 14, 2012, in Fulton, Missouri. The staff reviewed the comments received during scoping, reviewed related documents, and consulted with other Federal, State, and local agencies. On February 12, 2014, the staff issued its draft of the SEIS for Callaway, which contained the preliminary results of the staff's evaluation and recommendation.

With the publication of the U.S. Environmental Protection Agency's notice of filing of the draft SEIS, the NRC initiated a 45-day public comment period on the preliminary results of the staff's review. During this comment period, two public meetings took place in Fulton, Missouri, on March 19, 2014. At these meetings, the staff described the approach and the results of the NRC environmental review and answered questions from the public. The comment period for the draft SEIS ended on April 7, 2014. 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 NRC issued the final

version of the SEIS for Callaway on October 29, 2014 (Ref. 3). As discussed in Section 9.4 of the SEIS, the NRC staff's recommendation is that the adverse environmental impacts of Callaway license renewal are not great enough to deny the option of license renewal for energy-planning decision makers. This recommendation was based on all of the following:

- The analysis and findings in NUREG-1437;
- The Environmental Report submitted by Ameren Missouri in conjunction with the Callaway LRA;
- Consultation with other Federal, State, and local agencies;
- The staff's own independent review;
- The staff's consideration of public comments received.

Hearings, Petitions, and Adjudicatory Requests

Several requests for hearings, motions, and adjudicatory review were filed in the course of the staff's review of the Callaway LRA.

The first of two requests for hearing and petition for leave to intervene related to the Callaway proceeding was filed in response to the *Federal Register* notice published on February 16, 2012. On April 24, 2012, Missouri Coalition for the Environment (MCE) filed three contentions related to the National Environmental Policy Act (NEPA), petitioning, in essence, that (a) the Environmental Report lacked information regarding Ameren Missouri's plans to modify Callaway in response to post-Fukushima requirements, (b) that the Environmental Report failed to provide information regarding the status of Ameren Missouri's compliance with post-Fukushima orders and requests for information, and (c) the Environmental Report dismissed and refused to consider relative merits of wind energy as an alternative to its proposed license renewal request. In its ruling LBP-12-15, dated July 17, 2012, the Atomic Safety and Licensing Board (ASLB) ruled that the three contentions were each inadmissible for failure to raise an issue material to the findings the NRC must make in the license renewal action, raising issues outside of the scope of the proceeding, failure to show a genuine dispute existed with respect to a material issue of law or fact, and failure to submit adequate factual or expert support for a proposed contention.

In a second filing dated July 9, 2012, MCE submitted a separate proposed contention, claiming that Ameren Missouri's license renewal application Environmental Report was required by NEPA to include a discussion of the environmental impacts of spent fuel pool leakage, spent fuel pool fires, and the lack of a spent fuel repository. MCE claimed this was required by the decision of the U. S. Court of Appeals for the District of Columbia Circuit in *New York v. NRC*, 681 F 3d 471 (D.C. Cir. 2012). The ASLB held that contention in abeyance pending further Commission direction, in compliance with the Commission's order dated August 7, 2012 (CLI-12-16). In a ruling dated August 26, 2014, the Commission adopted the continued storage rule and ordered the ASLB "to reject the contentions pending before [it], consistent with our decision today" (CLI-14-08). On September 8, 2014, the ASLB acted in accordance with those

orders, denied MCE's contention, closed the record, and terminated the proceeding before it (LBP-14-12).

In a filing dated September 29, 2014, MCE and a number of other petitioners petitioned the ASLB to reopen proceedings, suspend final decisions in a number of licensing proceedings, including Callaway, and admit new contentions, claiming that the NRC's final rule (issued September 29, 2014) on continued storage and the supporting generic environmental impact statement does not make "valid findings of confidence or reasonable assurance that the hundreds of tons of highly radioactive spent fuel that will be generated during any reactor's license term can be safely disposed of in a repository." In an order dated October 7, 2014, the Commission exercised its supervisory authority to review the petitions and motions itself (CLI-14-09), and established a schedule for responses, motions, and replies to be filed to the Commission. These petitions and motions are pending before the Commission.

In a filing to the Federal Appeals Court for the District of Columbia Circuit, the states of New York, Connecticut, and Vermont petitioned for review of the NRC's continued storage rule, the associated generic environmental impact statement (GEIS), and the Commission's order CLI-14-08, dated August 26, 2014. The petitioners asked the court to review the actions and final agency rule, vacate them, and remand the issues back to the NRC.

Finally, on December 8, 2014, MCE submitted a motion to reopen the Callaway proceeding and admit a new contention challenging the Callaway final SEIS because it incorporated "the generic conclusions of the Continued Spent Fuel Storage Rule and GEIS." (Ref. 6) The petition and the motion are pending before the Commission.

The NRC can issue a renewed operating license to Callaway prior to resolution of appeals and pending contentions. CLI-08-13, *Amergen Energy Company, LLC (Oyster Creek Nuclear Generating Station)*, p. 5; Nuclear Power Plant License Renewal, Final Rule, 56 Fed. Reg. 64,943, 64,964 (Dec. 13, 1991) (Ref.7). In accordance with 10 CFR 54.31(c), if a renewed license is subsequently set aside on appeal, the previous operating license would be reinstated. For Callaway, this would mean reverting to the current license which is effective until October 18, 2024.

Conclusion

Based on a review of the Callaway LRA submitted by Ameren Missouri, the staff finds that there is sufficient basis to support the option of license renewal from an environmental perspective. The staff also finds that there is reasonable assurance that the activities authorized by the renewed license will continue to be conducted safely in accordance with the current licensing basis for Callaway.

RECOMMENDATION:

The staff recommends that the Commission authorize the Director of NRR to renew the operating license for Callaway upon making the appropriate findings on safety and environmental matters.

The Commissioners

6

COORDINATION:

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

/RA/

Mark A. Satorius
Executive Director
for Operations

Enclosure:
Reference List

COORDINATION:

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

/RA/

Mark A. Satorius
Executive Director
for Operations

Enclosure:
Reference List

Accession Number: ML14321A700

***Concurred via e-mail**

OFFICE	PM:RPB1:DLR	LA:RPB1:DLR*	BC:RPB1:DLR	Tech Editor*	PM:RPB2:DLR
NAME	JDaily	YEdmonds	YDiaz-Sanabria	CHsu	TTran
DATE	11/19/14	11/19/14	12/15/14	11/18/14	12/15/14
OFFICE	BC:RPB2:DLR*	OGC (NLO)*	D:DLR	D:NRR	EDO
NAME	BWittick	BMizuno	CMiller	WDean	MSatorius
DATE	12/15/14	1/5/15	1/6/15	1/15/15	2/03 /15

OFFICIAL RECORD COPY

REFERENCES

- (1) "Callaway Plant Unit 1, License Renewal Application," December 15, 2011. (Agencywide Documents Access and Management System (ADAMS) Accession No. ML113530372).
- (2) "Safety Evaluation Report Related to the License Renewal of Callaway Plant Unit 1," August 2014. (ADAMS Accession No. ML14232A380).
- (3) NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 51, Regarding Callaway Plant," Final Report, October 2014. (ADAMS Accession No. ML14289A140).
- (4) "Safety Evaluation Report with Open Items Related to the License Renewal of Callaway Plant Unit 1," April 2013. (ADAMS Accession No. ML13086A224).
- (5) Memorandum, Marc Dapas to Dan Dorman, "Callaway Plant, Unit 1 License Renewal Application," July 1, 2014. (ADAMS Accession No. ML14183A021).
- (6) Missouri Coalition for the Environment's Hearing Request and Petition to Intervene in License Renewal Proceeding for Callaway Nuclear Power Plant, filed December 8, 2014 (ML14342B010).
- (7) Nuclear Power Plant License Renewal, Final Rule, 56 Fed. Reg. 64,943 (Dec. 13, 1991).