



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

July 8, 2021

Dr. Alan Cebula  
Nuclear Reactor Facility Manager  
Kansas State University  
112 Ward Hall  
Manhattan, KS 66506-5204

SUBJECT: KANSAS STATE UNIVERSITY – RESPONSE TO REQUEST FOR EXTENSION OF TIME TO RESPOND TO REQUEST FOR ADDITIONAL INFORMATION REGARDING LICENSE AMENDMENT REQUEST FOR THE USE OF 12 PERCENT BY WEIGHT URANIUM FUEL ELEMENTS (EPID NO. L-2019-LLA-0092)

Dear Dr. Cebula:

By letter dated April 9, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12109A063), as supplemented by letters dated April 28, 2014; October 5, 2016; May 2, 2017; September 23, 2017; and November 30, 2018 (ADAMS Accession Nos. ML16200A317, ML16291A498, ML17139C979, ML17319A305, and ML18347A209, respectively), Kansas State University (KSU) applied for an amendment to Facility Operating License No. R-88 for the KSU Nuclear Reactor Facility. The U.S. Nuclear Regulatory Commission's (NRC's) approval of the license amendment request (LAR) would allow KSU to add up to four fuel elements that are 12 percent by weight uranium to its reactor core.

On June 5, 2019 (ADAMS Accession No. ML19128A342), the NRC staff sent KSU a letter enclosing a request for additional information (RAI) identifying additional information needed for the NRC staff to continue its review of KSU's LAR. The NRC staff's June 5, 2019, letter requested that KSU provide responses to the RAIs by October 7, 2019. Additionally, based on this RAI response date, the NRC staff provided KSU with an estimated LAR review completion date of December 31, 2020.

By letter dated October 7, 2019 (ADAMS Accession No. ML19295D727), KSU requested an extension until January 7, 2020, to respond to the NRC staff's June 5, 2019, RAI. The NRC staff granted KSU's original October 7, 2019, extension request by letter dated October 24, 2019 (ADAMS Accession No. ML19290H593). By letter dated January 7, 2020 (ADAMS Accession No. ML20013F680), KSU requested a second extension until March 7, 2020, to respond to the RAI. The NRC staff granted KSU's January 7, 2020, extension request by letter dated January 13, 2020 (ADAMS Accession No. ML20008D352). By letter dated March 9, 2020 (ADAMS Accession No. ML20083G194), KSU requested a third extension until June 9, 2020, to respond to the RAI. The NRC staff granted KSU's March 9, 2020, extension request by letter dated March 30, 2020 (ADAMS Accession No. ML20070H674). By letter dated June 5, 2020 (ADAMS Accession No. ML20171A392), KSU requested a fourth extension until September 9, 2020, to respond to the RAI. The NRC staff granted KSU's June 5, 2020, extension request by letter dated June 23, 2020 (ADAMS Accession No. ML20167A306). By letter dated September 8, 2020 (ADAMS

Accession No. ML20269A247), KSU requested a fifth extension until December 9, 2020, to respond to the June 5, 2019, RAI. The NRC staff granted KSU's September 8, 2020, extension request by letter dated October 5, 2020 (ADAMS Accession No. ML20253A235). By letter dated December 8, 2020 (ADAMS Accession No. ML20366A046), KSU requested a sixth extension until March 9, 2021, to respond to the RAI. The NRC staff granted KSU's December 8, 2020, extension request by letter dated January 26, 2021 (ADAMS Accession No. ML21013A540). By letter dated March 8, 2021 (ADAMS Accession No. ML21105A485), KSU requested a seventh extension until June 9, 2021, to respond to the RAI. The NRC staff granted KSU's March 8, 2021, extension request by letter dated April 15, 2021 (ADAMS Accession No. ML21070A010).

By letter dated June 9, 2021 (ADAMS Accession No. ML21188A209), KSU requested a further extension until June 9, 2022, to respond to the June 5, 2019, RAI. KSU stated that it still needs to perform fuel burn-up analyses necessary for benchmarking and completion of its core neutronics model. KSU stated that it has a proposal, which is under review for funding, from an external organization to perform the burn-up analyses and testing of the neutronics model. However, due to prior commitments of the external organization, the proposed work would not begin until August 2021, and would be completed in February 2022. KSU stated that the additional time is needed to allow the neutronics model to be completed and input into its thermal-hydraulic analysis, such that it can provide complete responses to the RAI.

Additionally, in its letter dated June 9, 2021, KSU confirmed that the administrative operating restrictions (discussed in its letter dated October 7, 2019, and acknowledged in the NRC staff's October 24, 2019, letter) continue to remain in place, and KSU will provide advance notification to the NRC if KSU plans to change the restrictions prior to completion of the LAR review.

The NRC staff accepts KSU's extension request dated June 9, 2021. The NRC staff encourages KSU to continue to keep the NRC staff up to date on its progress in responding to the RAI. The NRC staff also encourages KSU to contact the NRC staff to discuss any questions related to the RAI. Additionally, the NRC staff could plan to conduct a regulatory audit related to the LAR before and/or after KSU submits its RAI response, to support efficient completion of the LAR review.

Based on the new RAI response date of June 9, 2022, the NRC staff is providing a revised date of August 31, 2023, by which it expects to complete its review and make a final determination on the LAR. This date could change due to several factors including a need for further RAIs, unanticipated changes to the scope of the review, unsolicited supplements to the application for amendment, and others. If the forecasted date changes, the NRC staff will notify you in writing of the new date and an explanation of the reason for the change.

If you have any questions or need additional time to respond to the NRC staff's original June 5, 2019, request, please contact me at 301-415-4067, or by electronic mail at [Edward.Helvenston@nrc.gov](mailto:Edward.Helvenston@nrc.gov).

Sincerely,



Signed by Helvenston, Edward  
on 07/08/21

Edward M. Helvenston, Project Manager  
Non-Power Production and Utilization  
Facility Licensing Branch  
Division of Advanced Reactors and Non-Power  
Production and Utilization Facilities  
Office of Nuclear Reactor Regulation

Docket No. 50-188  
License No. R-88

cc: See next page

Kansas State University

Docket No. 50-188

cc:

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**ADAMS Accession No. ML21166A333**

**NRR-106**

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