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

January 7, 2020

Mr. Thomas D. Ray, P.E.
Site Vice President
McGuire Nuclear Station
Duke Energy
12700 Hagers Ferry Road
Huntersville, NC 28078

SUBJECT: EXEMPTION REQUEST FOR NAC MAGNASTOR® CASK LOADED TO INCORRECT HELIUM BACKFILL DENSITY–REQUEST FOR ADDITIONAL INFORMATION

Dear Mr. Ray:

By letter dated September 12, 2019 [Agencywide Documents Access and Management System (ADAMS) Accession No. ML19270E738], Duke Energy Carolinas, LLC (Duke Energy) submitted an exemption request to the U.S. Nuclear Regulatory Commission (NRC) for NAC MAGNASTOR® Cask 0FCTKN045 due to a non-compliance with the terms and conditions of the NAC MAGNASTOR® Certificate of Compliance (CoC) No. 1031, Amendment No. 7, at the time of loading.

The NRC staff reviewed your request and determined the need for additional information as identified in the request for additional information (RAI) in the enclosures to this letter. We request that you provide the responses to these RAIs within 30 days from the date of this letter. If you are unable to meet this deadline, please notify us in writing, within 2 weeks of receipt of this letter, of your new submittal date and the reasons for the delay.

The NRC staff has established a schedule for the review. The schedule allows the staff to issue the decision in June 2020, based on having only one RAI and Duke Energy satisfactorily responding to the RAI within 30 days of the RAI issuance. The staff estimates that completing the safety review of this certificate amendment application will require approximately 320 staff review hours.

Please reference Docket Nos. 50-369, 50-370, 72-1031, CAC No. 001028, and the Enterprise Project Identification Number L-2019-LLE-0024 in future correspondence related to this licensing action. If you have any questions, please contact me at 301-415-1018.

Sincerely,

/RA/

Yen-Ju Chen, Sr. Project Manager
Storage and Transportation Licensing Branch
Division of Fuel Management
Office of Nuclear Material Safety
and Safeguards

Docket Nos.: 50-369, 50-370, 72-1031
CAC No.: 001028
EPID No.: L-2019-LLE-0024

Enclosures:
1. RAI (Redacted)
2. RAI (Proprietary)

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DATE: January 7, 2020

DISTRIBUTION:
DFM r/f

ADAMS Package Accession No.: ML20008D251 (P), ML19354B637 (L), ML20008D264 (Enclosure)

OFFICE:	DFM	DFM	DFM	DFM
NAME:	YChen	WWheatley*	YKim*	JBorowsky*
DATE:	01/07/19	12/19/19	12/16/2019	12/13/2019
OFFICE:	DSFM	DSFM	DSFM	
NAME:	MRahimi*	CBajwa* for YDiaz-Sanabria	DDoyle	
DATE:	12/17/2019	12/17/2019	12/23/19	

OFFICIAL RECORD COPY
*concur via email

Request for Additional Information

Docket Nos. 50-369, 50-370, 72-1031
Duke Energy Carolinas, LLC
McGuire Nuclear Station, Units 1 and 2
Independent Spent Fuel Storage Installation

RAI-1. Provide the calculation package that includes:

a. the calculations of the revised internal pressures of [redacted] psig, [redacted] psig, and [redacted] psig for normal, off-normal, and accident conditions, respectively, with the helium density of [redacted] grams/liter;

b. the calculations of the adjusted stresses and stress intensities to calculate the factor of safety (FS) of [redacted] for normal pressure and handling, [redacted] for off-normal pressure and handling, and [redacted] for normal pressure and tip-over; and

c. the calculations of the adjustments made to the applicable stress components to account for the reduction in the weight of the contents of the transportable storage canister as compared to the design basis contents weight.

Using the FS = [redacted] with the design basis internal pressure of [redacted] psig at the most critical point (Section 3) for normal pressure plus handling in Table 3.10.3-2 of the FSAR, Revision 8, the staff calculated a FS with the new internal pressure of [redacted] psig that would be less than 1.0 without considering a stress adjustment due to the weight reduction. The staff needs to review the detailed information provided in the applicant's calculations, but the calculation package was not submitted.

This information is needed to determine compliance with 10 CFR 72.122(a) and (b).