



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

February 29, 2016

Mr. Steven D. Capps
Vice President
McGuire Nuclear Station
Duke Energy Carolinas, LLC
12700 Hagers Ferry Road
Huntersville, NC 28078-8985

SUBJECT: MCGUIRE NUCLEAR STATION, UNITS 1 AND 2 – ENVIRONMENTAL
ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT (CAC
NOS. MF6693 AND MF6694)

Dear Mr. Capps:

Enclosed is a copy of the Environmental Assessment and Finding of No Significant Impact related to your letter to the U.S. Nuclear Regulatory Commission requesting an exemption from Title 10 of the *Code of Federal Regulations* Part 74.19(c) dated August 17, 2015, as supplemented by letter dated October 6, 2015 (Agencywide Documents Access and Management System Accession Nos. ML15239B240 and ML15300A282, respectively). The regulation requires, in part, that a physical inventory be conducted of all special nuclear material at intervals not to exceed twelve months. The proposed exemption would allow an alternative to the physical inventory requirements for movable in-core detectors.

The assessment is being forwarded to the Office of the Federal Register for publication. If you have any questions, please contact me at 301-415-2481 or by e-mail at Ed.Miller@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "G. Edward Miller", is written over a large, stylized, handwritten "E" that serves as a background for the signature.

G. Edward Miller, Project Manager
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-369 and 50-370

Enclosures:
Environmental Assessment

cc w/encl: Distribution via Listserv

NUCLEAR REGULATORY COMMISSION

Docket Nos. 50-369 and 50-370; NRC-2016-XXXX

Duke Energy Carolinas, LLC

McGuire Nuclear Station Units 1 and 2

AGENCY: Nuclear Regulatory Commission.

ACTION: Environmental assessment and finding of no significant impact; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an exemption for Facility Operating License Nos. NPF-9 and NPF-17, issued to Duke Energy Carolinas, LLC (Duke, the licensee) for operation of McGuire Nuclear Station, Units 1 and 2 (McGuire), located near Huntersville, North Carolina. The licensee requested an exemption from certain physical inventory requirements because the inventory items are no longer in service and are not readily accessible. The NRC prepared an environmental assessment (EA) documenting its finding. The NRC concluded that the proposed actions will have no significant environmental impact. Accordingly, the NRC staff is issuing its final EA and a final finding of no significant impact (FONSI) associated with the proposed exemption.

DATES: The environmental assessment referenced in this document is available on **[INSERT DATE OF PUBLICATION]**.

ADDRESSES: Please refer to Docket ID <NRC-2016-XXXX> 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 Web Site:** Go to <http://www.regulations.gov> and search for Docket ID <NRC-2016-XXXX>. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; e-mail: Carol.Gallagher@nrc.gov.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "[ADAMS Public Documents](#)" and then 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, 301-415-4737, or by e-mail to pdr.resource@nrc.gov. The ADAMS accession number for each document referenced in this document (if that document is available in ADAMS) is provided the first time that a document is referenced.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

FOR FURTHER INFORMATION CONTACT: G. Edward Miller, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001; telephone: 301-415-2481, email: Ed.Miller@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction.

The NRC is considering issuance of an exemption from Part 74.19(c) of Title 10 of the Code of Federal Regulations (10 CFR) for Facility Operating License Nos. NPF-9 and NPF-17, issued to Duke for operation of McGuire, located near Huntersville, North Carolina. Consistent with 10 CFR 51.21, the NRC has reviewed the requirements in 10 CFR 51.20(b) and 10 CFR 51.22(c) and determined that an EA is the appropriate form of environmental review for the requested action. In accordance with 10 CFR 51.21, the NRC prepared an EA documenting its finding. Based on the results of the EA, the NRC concluded that the proposed actions will have no significant environmental impact and is issuing this final FONSI.

II. Environmental Assessment.

Description of the Proposed Action:

The regulation in 10 CFR 74.19(c) requires, in part, "Other than licensees subject to Sections 74.31, 74.33, 74.41, or 74.51, each licensee who is authorized to possess special nuclear material, at any one time and site location, in a quantity greater than 350 grams of contained uranium-235, uranium-233, or plutonium, or any combination thereof, shall conduct a physical inventory of all special nuclear material in its possession under license at intervals not to exceed 12 months." By application dated August 17, 2015, as supplemented by letter dated October 6, 2015 (ADAMS Accession Nos. ML15239B240 and ML15300A282, respectively), the licensee requested an exemption from certain recordkeeping requirements in 10 CFR 74.19(c).

Specifically, the licensee requested an exemption for conducting a physical inventory of the moveable incore detectors in their Moveable Incore Detector (MIDS) system. The moveable incore detectors are no longer in service and are stored in a location where they are not readily accessible except during plant outages.

Need for the Proposed Action:

The proposed exemption to the recordkeeping requirements of 10 CFR 74.19(c) is needed to grant the licensee relief from the physical inventory requirements for the movable incore detectors in their MIDS system, which contain special nuclear material and are required to be listed on their physical inventory. The licensee states that the moveable incore detectors have been removed from service and are stored inside shielded storage pipes (sleeves) located inside the reactor buildings concrete inner shield wall, making them physically inaccessible. The licensee also states that modifications are being made to ensure that the moveable incore detectors meet the requirements of inaccessibility. The modifications involve installing tamper-evident seals to ensure the incore detectors are not accessed and the seals will be verified every outage.

Environmental Impacts of the Proposed Action:

The NRC has completed its evaluation of the proposed action and concludes that the proposed exemption would not significantly increase the probability or consequences of accidents. No changes would be made in the types of effluents that may be released offsite. There would be no significant increase in the amount of any effluent released offsite. There would be no significant increase in occupational or public radiation exposure. Therefore, there would be no significant radiological environmental impacts associated with the proposed action.

With regard to potential non-radiological impacts, the proposed action would not have any foreseeable impacts to land, air, or water resources, including impacts to biota. In addition, there are also no known socioeconomic or environmental justice impacts associated with such 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 actions, the NRC staff considered denial of the proposed action (i.e., the "no-action" alternative). Denial of the exemption request would result in no change in current environmental impacts. The environmental impacts of the proposed exemption and the "no action" alternative are similar.

Alternative Use of Resources:

The action does not involve the use of any different resources than those previously considered in the "Final Environmental Statement Related to the Operation of William B. McGuire Nuclear Station, Units 1 and 2," dated January, 1981, and the "Generic Environmental Impact Statement for License Renewal of Nuclear Plants [NUREG-1437], Supplement 8, Regarding McGuire Nuclear Station Units 1 and 2, Final Report," dated December 2002 (ADAMS Accession No. ML030020184).

Agencies and Persons Consulted:

The staff did not enter into consultation with any other Federal Agency or with the State of North Carolina regarding the environmental impact of the proposed action.

III. Finding of No Significant Impact.

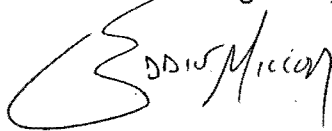
On the basis of the environmental assessment, the NRC concludes that the proposed exemption will not have a significant effect on the quality of the human environment.

Accordingly, the NRC has determined not to prepare an environmental impact statement for the proposed action. Other than the licensee's letter dated August 17, 2015, and supplemented October 6, 2015, there are no other environmental documents associated with this review.

This document is available for public inspection as indicated above.

Dated at Rockville, Maryland, this 29TH day of February 2016.

For the Nuclear Regulatory Commission.

A handwritten signature in black ink, appearing to read "G. Edward Miller", is written over a large, stylized, handwritten "E" that serves as a signature element.

G. Edward Miller, Project Manager
Plant Licensing Branch II-1,
Division of Operating Reactor Licensing,
Office of Nuclear Reactor Regulation.

February 29, 2016

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Vice President
McGuire Nuclear Station
Duke Energy Carolinas, LLC
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/RA/

G. Edward Miller, Project Manager
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-369 and 50-370

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Environmental Assessment

cc w/encl: Distribution via Listserv

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ADAMS Accession No.: ML16033A400 FRN: ML16029A381 Package: ML16033A415 NRR-004

OFFICE	NRR/LPL1-2/PM	NRR/LPL2-1/PM	NRR/LPL2-1/LA	NRR/DLR/RERB
NAME	THood	GEMiller	SFiguroa	JDanna
DATE	02/02/16	02/04/16	02/04/16	02/04/16
OFFICE	OGC	NRR/LPL2-1/BC	ADM/DAS/RADB (FRN Early Review)	NRR/LPL2-1/PM
NAME	SFowler	MMarkley	JBorges	GEMiller
DATE	02/16/16	02/29/16	02/02/16	02/29/16

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