



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

December 14, 2021

LICENSEE: Duke Energy Carolinas, LLC

FACILITY: Catawba Nuclear Station, Unit 2

SUBJECT: SUMMARY OF DECEMBER 7, 2021, PUBLIC MEETING WITH DUKE ENERGY CAROLINAS, LLC, REGARDING PRE-APPLICATION MEETING TO DISCUSS REACTOR VESSEL CLOSURE HEAD NOZZLE REPAIR (EPID L-2021-LRM-0110)

On December 7, 2021, an Observation public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Duke Energy Carolinas, LLC (Duke Energy, the licensee). The purpose of the meeting was for Duke Energy to discuss a proposed relief request, for Catawba Nuclear Station, Unit 2, to extend the NRC-approved period of time beyond the current cycle (Cycle 25) of the weld overlay performed on the reactor vessel closure head (RVCH) penetration #74.

The meeting notice and agenda, dated October 25, 2021, are available in the Agencywide Documents Access and Management System (ADAMS) at Accession No. ML21298A035, and the licensee's presentation is available in ADAMS as Accession No. ML21336A142. A list of the meeting's attendees is provided as an enclosure to this letter.

#### Background

During the Catawba Nuclear Station, Unit 2, refueling outage, the licensee identified a relevant indication in the RVCH penetration #74 J-groove weld. Based on the licensee's assessment and examination of the indication, the licensee determined that the repair of the J-groove weld was required during the refueling outage. By letter dated April 23, 2021 (ADAMS Accession No. ML21113A215), as supplemented by letter dated April 24, 2021 (ADAMS Accession No. ML21114A000), the licensee proposed to repair the J-groove weld of RVCH penetration #74 using an embedded flaw repair process as an alternative to the defect removal and weld repair provisions of American Society of Mechanical Engineers (ASME) Section XI, IWA-4000 and ASME Section III, NB-4450. On April 24, 2021 (ADAMS Accession No. ML21117A129), the U.S. Nuclear Regulatory Commission (NRC) verbally authorized the proposed alternative RA-21-0145 for one cycle of operation at Catawba Nuclear Station, Unit 2, until the end of Cycle 25 that is scheduled to end in the fall 2022. On September 20, 2021 (ADAMS Accession No. ML21253A082), the NRC authorized the use of proposed alternative RA-21-0145 at Catawba Nuclear Station, Unit 2, for one cycle of operation that will end in fall 2022.

#### Teleconference

During the teleconference, Duke Energy discussed the presentation as written.

Duke Energy is proposing to use the RVCH penetration #74 embedded flaw repair (EFR) through the remaining licensed plant life (December 5, 2043) as an alternative to the defect removal and weld repair provisions of the ASME code. Duke Energy is proposing to submit a site-specific fracture mechanics analysis to justify the proposed duration is bounded by the service life of the repair.

#### NRC Questions to Duke Energy

The NRC staff stated that the site-specific fracture mechanics analysis should contain sufficient detail for NRC staff to perform an independent assessment to conclude the alternative provides an acceptable level of quality and safety.

The NRC staff questioned if the licensee requested approval date of September 10, 2022, was adequate for outage planning purposes because the current approval expires at the end of Cycle 25, which is scheduled to end in the fall of 2022. The licensee stated they would follow up with the NRC staff.

#### Public Questions to NRC

No members of the public were in attendance.

#### Closing

No regulatory decisions or commitments were made during the meeting. Public Meeting Feedback forms were available, but no comments were received.

Please direct any inquiries to me at 301-415-0615, or [Zackary.stone@nrc.gov](mailto:Zackary.stone@nrc.gov).

Zackary R. Stone, Project Manager  
Plant Licensing Branch, II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-414

Enclosures:  
List of Attendees

cc: Listserv

LIST OF ATTENDEES

DECEMBER 7, 2021, PUBLIC MEETING WITH DUKE ENERGY CAROLINAS

REGARDING A PRE-APPLICATION MEETING TO DISCUSS

REACTOR VESSEL CLOSURE HEAD NOZZLE REPAIR

CATAWBA NUCLEAR STATION, UNIT 2

Nuclear Regulatory Commission Staff

Zackary Stone  
Shawn Williams  
Michael Markley  
Ali Rezai

Duke Energy Carolinas/Westinghouse Participants

Lee Grzeck  
Chet Sigmon  
Mark Honeycutt  
Scott Karriker  
Sherry Andrews  
Anees Udyawar  
Steve Marlette  
Maria Rizzilli  
Geoffrey Loy  
Stephen Feder  
Jason Pulliam  
David Burton  
Wayne Gibson  
Mandy Hare  
Lisa Gerken  
Lynn Patterson

SUBJECT: SUMMARY OF DECEMBER 7, 2021, PUBLIC MEETING WITH DUKE ENERGY CAROLINAS, LLC, REGARDING PRE-APPLICATION MEETING TO DISCUSS REACTOR VESSEL CLOSURE HEAD NOZZLE REPAIR (EPID L-2021-LRM-0110) DATED DECEMBER 14, 2021

DISTRIBUTION:

PUBLIC

RidsAcrs\_MailCTR Resource

RidsNrrDorlLpl2-1 Resource

RidsNrrLAKGoldstein

RidsNrrPMCatawba Resource

RidsRgn2MailCenter Resource

MMarkley, NRR

MMitchell, NRR

JCollins, NRR

AREzai, NRR

**ADAMS Accession Nos.: Package: ML21342A131 Meeting Summary: ML21342A090**

**Meeting Notice: ML21298A03 Handouts: ML21336A142**

OFFICE	NRR/DORL/LPL2-1/PM	NRR/DORL/LPL2-1/LA	NRR/DNRL/NPHP/BC
NAME	ZStone	KGoldstein	MMitchell
DATE	12/07/2021	12/08/2021	12/07/2021
OFFICE	NRR/DORL/LPL2-1/BC	NRR/DORL/LPL2-1/PM	
NAME	MMarkley	ZStone	
DATE	12/14/2021	12/14/2021	

**OFFICIAL RECORD COPY**