



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

May 8, 2015

Mr. K. Henderson  
Site Vice President  
Catawba Nuclear Station  
Duke Energy Carolinas, LLC  
4800 Concord Road  
York, SC 29745

SUBJECT: CATAWBA NUCLEAR STATION, UNITS 1 AND 2 (CATAWBA 1 AND 2) –  
REQUEST TO USE A LATER EDITION OF THE ASME BOILER AND  
PRESSURE VESSEL CODE, SECTION XI, FOR INSERVICE INSPECTION  
ACTIVITIES (TAC NOS. MF5866 AND MF5867)

Dear Mr. Henderson:

By letter dated March 16, 2015 (Accession No. ML15077A061), Duke Energy Carolinas, LLC (Duke) requested to use a portion of the requirements of subsequent editions and addenda of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code. The request pertains to inservice inspection (ISI) of Class 1 pressure retaining welds in valve bodies at the Catawba Nuclear Station, Units 1 and 2.

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(g)(4)(iv), Duke requested to use a portion of requirements of the 2007 Edition through 2008 Addenda of the ASME Code, Section XI, for ISI of the Class 1 pressure retaining welds in valve bodies, subject to conditions listed in 10 CFR 50.55a(b).

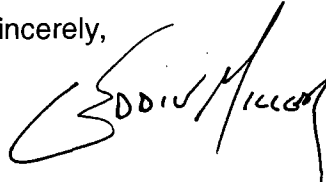
As documented in the enclosed safety evaluation, the NRC staff has concluded that Duke has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(g)(4)(iv). Therefore, the NRC staff authorizes use of a portion of the 2007 Edition through 2008 Addenda of the ASME Code for the welds under consideration for the remainder of the third 10-year ISI interval in Catawba, Unit 1, which will end on June 29, 2016, and Unit 2, which will end on February 19, 2017.

K. Henderson

- 2 -

If you have any questions, please call me at 301-415-2481.

Sincerely,

A handwritten signature in black ink, appearing to read "G. Edward Miller". The signature is stylized with a large, sweeping initial "G" and a long, horizontal stroke extending to the right.

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

Docket Nos. 50-413 and 50-414

Enclosure:  
Safety Evaluation

cc w/encl: Distribution via Listserv



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO

REQUEST TO USE A LATER EDITION AND ADDENDA OF

ASME BOILER AND PRESSURE VESSEL, SECTION XI, CODE FOR

INSERVICE INSPECTION ACTIVITIES

DUKE ENERGY CAROLINAS, LLC

CATAWBA NUCLEAR STATION, UNITS 1 AND 2

DOCKET NOS. 50-413 AND 50-414

1.0 INTRODUCTION

By letter dated March 16, 2015 (Accession No. ML15077A061), Duke Energy Carolinas, LLC (the licensee) requested to use a portion of the requirements of subsequent editions and addenda of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (B&PV Code). The request pertains to inservice inspection (ISI) of Class 1 pressure retaining welds in valve bodies at the Catawba Nuclear Station, Units 1 and 2.

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(g)(4)(iv), the licensee requested to use a portion of requirements of the 2007 Edition through 2008 Addenda of the ASME Code, Section XI, for ISI of the Class 1 pressure retaining welds in valve bodies, subject to conditions listed in 10 CFR 50.55a(b).

2.0 REGULATORY EVALUATION

Pursuant to 10 CFR 50.55a(g)(4)(iv) "Applicable ISI Code: Use of subsequent Code editions and addenda," inservice examination of components and system pressure tests may meet the requirements set forth in subsequent editions and addenda that are incorporated by reference in paragraph (a) of 10 CFR 50.55a, subject to the conditions listed in paragraph (b) of 10 CFR 50.55a, and subject to Commission approval. Portions of editions or addenda may be used, provided that all related requirements of the respective editions or addenda are met.

Based on the above, and subject to the following technical evaluation, the NRC staff finds that regulatory authority exists for the licensee to request and the NRC to authorize the use of subsequent editions and addenda of the ASME Code requested by the licensee.

Enclosure

### 3.0 TECHNICAL EVALUATION

#### 3.1 Components Affected

The components affected are ASME Code Class 1 pressure retaining welds in valve bodies. In accordance with IWB-2500 (Table IWB-2500-1) of the 1998 Edition through 2000 Addenda of the ASME Code, Section XI, these welds are classified as Examination Category B-M-1.

#### 3.2 Applicable Code and Edition and Addenda

The code of record for the third 10-year ISI interval is the 1998 Edition through 2000 Addenda of the ASME Code.

#### 3.3 Duration of Request

The licensee submitted this request for the remainder of the third 10-year ISI interval at Catawba, Unit 1, which commenced on June 29, 2005, and will end on June 29, 2016, and Unit 2, which commenced on October 15, 2005, and will end on February 19, 2017.

#### 3.4 ASME Code Requirement

The 1998 Edition through 2000 Addenda of the ASME Code, Section XI, IWB-2500, Table IWB-2500-1, Examination Category B-M-1, requires Class 1 pressure retaining welds in valve bodies be subjected to surface or volumetric examination every inspection interval.

#### 3.5 Request

The licensee requested to use a portion of the 2007 Edition through 2008 Addenda of the ASME Code, Section XI, that is applicable to Examination Category B-M-1 (Table IWB-2500-1). Examination Category B-M-1 or Class 1 pressure retaining welds in valve bodies were removed from the 2007 Edition through 2008 Addenda of the ASME Code.

#### 3.6 Basis for Request

The licensee stated that because the 2007 Edition through 2008 Addenda of the ASME Code has no ISI requirement for Examination Category B-M-1, thereby, eliminates the radiological dose that would otherwise be incurred by performing the examinations.

### 3.7 NRC Staff Evaluation

The NRC staff has evaluated this request pursuant to 10 CFR 50.55a(g)(4)(iv). The NRC staff review focused on whether the requirements of 10 CFR 50.55a(g)(4)(iv) are met.

The NRC staff confirmed that:

- The licensee's proposed 2007 Edition through 2008 Addenda of the ASME Code is incorporated by reference in 10 CFR 50.55a(a);
- 10 CFR 50.55a(b) has no conditions for Examination Category B-M-1 or Class 1 pressure retaining welds in valve bodies;
- This submittal serves as the licensee's request for the NRC approval, for the use of a portion of subsequent editions and addenda of the ASME Code (i.e., 2007 Edition through 2008 Addenda for Examination Category B-M-1);
- For the portion of the 2007 Edition through 2008 Addenda that is to be used, there are no related requirements because Examination Category B-M-1 or Class 1 pressure retaining welds in valve bodies were removed from the respective editions or addenda.

Therefore, the NRC staff finds that the licensee satisfied all the requirements in 10 CFR 50.55a(g)(4)(iv), therefore, use of a portion of the 2007 Edition through 2008 Addenda of the ASME Code applicable to the welds under consideration is acceptable.

### 4.0 CONCLUSION

As set forth above, the NRC staff determined that use of subsequent editions and addenda of the ASME Code, Section XI, requirements is acceptable. Accordingly, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(g)(4)(iv). Therefore, the NRC staff authorizes use of a portion of the 2007 Edition through 2008 Addenda of the ASME Code for the welds under consideration for the remainder of the third 10-year ISI interval in Catawba, Unit 1, which will end on June 29, 2016, and Unit 2, which will end on February 19, 2017.

All other ASME Code, Section XI, requirements for which relief was not specifically requested and authorized herein by the staff remain applicable, including the third party review by the Authorized Nuclear Inservice Inspector.

Principal Contributors: A. Rezai

Date: May 8, 2015.

K. Henderson

- 2 -

If you have any questions, please call me at 301-415-2481.

Sincerely,

/RA/

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

Docket Nos. 50-413 and 50-414

Enclosure:  
Safety Evaluation

cc w/encl: Distribution via Listserv

**DISTRIBUTION:**

PUBLIC LPL2-1 R/F  
RidsAcrsAcnw\_MailCTR Resource  
RidsNrrLASFiguroa Resource  
RidsNrrDeEpnb Resource

RidsRgn2MailCenter Resource  
RidsNrrDorIDpr Resource  
RidsNrrDorILpl2-1 Resource  
RidsNrrPMCatawba Resource

**ADAMS Accession No. ML15124A699**

\*Via SE Input

OFFICE	DORL/LPL2-1/PM	DORL/LPL2-1/LA	DE/EPNB/BC	DORL/LPL2-1/BC
NAME	GEMiller	SFiguroa	DAlley*	RPascarelli
DATE	05/04/15	05/04/15	04/29/15	05/08/15

**OFFICIAL RECORD COPY**