



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

August 15, 2014

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 – REQUEST FOR  
ADDITIONAL INFORMATION REGARDING RELIEF REQUEST 14-CN-001  
(TAC NOS. MF3527 AND MF3528)

Dear Mr. Henderson:

By letter dated February 20, 2014, Duke Energy Carolinas, LLC (Duke, the licensee), submitted relief request 14-CN-001. The application requested relief from the volumetric examination coverage requirements of the ASME Code, Section XI.

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the licensee's submittal and determined that additional information is needed in order to complete our review. The enclosed document describes this request for additional information (RAI). On August 5, 2014, the Duke staff indicated that a response to the RAI would be provided within 30 days of the date of this letter.

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

Sincerely,

A handwritten signature in cursive script that reads "James R. Hall for". The signature is written in dark ink and is positioned above the typed name of the signatory.

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:  
Request for Additional Information

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION REGARDING

RELIEF REQUEST SERIAL NUMBER 14-CN-001

LIMITED VOLUMETRIC EXAMINATION OF CLASS 1 WELDS

DUKE ENERGY CAROLINAS, LLC

CATAWBA NUCLEAR STATION, UNITS 1 AND 2

DOCKET NOS. 50-413 AND 50-414

By letter dated February 20, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14052A387), Duke Energy Carolinas, LLC (Duke Energy) submitted relief request 14-CN-001. Pursuant to Title 10 of the *Code of Federal Regulations* Part 50.55a(g)(5)(iii), the request sought relief from the volumetric examination coverage requirements of the ASME Code, Section XI. In order for the NRC staff to complete its review of the relief request, the following additional information is requested.

**RAI 1**

The NRC reviewed the volumetric examination coverage amounts obtained during the third 10-year inservice inspection (ISI) interval for the nine welds identified in Table 1 in Duke Energy's Relief Request 14-CN-001, and compared them to the coverage amounts obtained during the second 10-year ISI interval examinations. The NRC noted significant differences in the coverage amounts for the Catawba Nuclear Station (CNS), Units 1 and 2, pressurizer surge nozzle to head welds, as summarized in Table 1 below.

- a. Explain the rationale for using the different scan angles to examine the pressurizer surge nozzle to head welds for both CNS units that led to the significantly different amount of coverage observed for these welds.
- b. Explain the capability of the 35 degree scan angle to adequately detect flaws in the pressurizer surge nozzle to head welds compared to the standard 45 degree and 60 degree scan angles.
- c. The figures in 14-CN-001 associated with this component indicate welds that have been ground flush. Clarify the surface condition of the welds and whether credit was taken for scans performed over the welds.

Enclosure

Table 1. Pressurizer Surge Nozzle to Head Weld Examination Coverage Amounts

CNS Unit	Weld	3 <sup>rd</sup> ISI Interval Coverage and Scan Angles <sup>(1)</sup>	2 <sup>nd</sup> ISI Interval Coverage and Scan Angles [Date of Exam, Source]	Change in Coverage
1	1-PZR-W1	81.4 %  Scan angles used: 35°, 45°, 60°	77.2 %  [2005, September 8, 2005 Relief Request (ML052590564)]  Scan angles used: 35°, 45°	+ 4.2 %
2	2-PZR-W1	81.2 %  Scan angles used: 35°, 45°, 60°	42.8 %  [2001, December 20, 2001 Relief Request (ML0203300121)]  Scan angles used: 60°, 70°	+ 38.4 %

Note: (1) Source: Relief Request 14-CN-001 (ML14052A387).

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/RA/ James R. Hall for

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DATE	08/15/14	08/14/14	08/15/14	08/15/14

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