

September 16, 2004

U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

ATTENTION: Document Control Desk

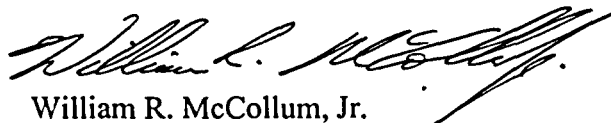
SUBJECT: Duke Energy Corporation  
Oconee Nuclear Station, Unit 3, Docket Nos. 50-287  
McGuire Nuclear Station, Unit 2, Docket No. 50-370  
Catawba Nuclear Station, Units 1 & 2, Docket Nos. 50-413, 50-414

Response to Request for Additional Information  
Relief Request 04-GO-002  
(TAC NOS. MC3804, MC3805, MC3807, MC3810)

Pursuant to 10 CFR 50.55a (a) (3) (i), Duke Energy Corporation (Duke) submitted Relief Request 04-GO-002 for Oconee Unit 3, McGuire Unit 2 and Catawba Units 1 and 2 on July 14, 2004 and supplemented the request on September 1, 2004. By letter dated September 9, 2004 the NRC Staff requested additional information with respect to several issues within the relief request. Attachment 1 provides the requested information and Attachment 2 provides a sketch illustrating the volumetric coverage for Oconee Unit 3.

Questions regarding this submittal may be directed to Mary Hazeltine at 704-382-5880.

Very truly yours,

  
William R. McCollum, Jr.

Attachments

A047

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J. M. Ferguson - Date File (CN01SA)  
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North Carolina Municipal Power Agency Number 1  
Saluda River Electric Cooperative, Inc.  
Piedmont Municipal Power Agency  
North Carolina Electric Membership Corporation  
MNS MasterFile MC-801.01 (MG01DM)  
CNS MasterFile CN-801.01 (CN04DM)  
ONS MasterFile ON-801.01 (ON03DM)  
ELL

**Attachment 1**  
**RAI Questions and Responses for Relief Request 04-GO-002**

**NRC Question 1:**

Regarding CNS-1, you plan on using the proposed alternative after the second inservice inspection (ISI) interval ends. Please clarify if you plan to extend the second ISI interval for CNS-1, or if CNS-1 will ask for relief from the requirements in a different edition of the Code.

Facility	Applicable Code	Applicable Interval	Proposed Alternative Used During ...
CNS-1	1989 Edition, No Addenda	Second June 29, 1995 to June 29, 2005	Spring 2006 ?
CNS-2	1989 Edition, No Addenda	Second Aug. 19, 1996 to Aug. 19, 2006	Fall 2004
MNS-2	1989 Edition, No Addenda	Second (Extended through a RR) February 29, 1994 to June 1, 2005	Spring 2005
ONS-3	1989 Edition, No Addenda	Third Dec. 16, 1994 to Dec. 16, 2004	Fall 2004

**Duke Response 1:**

Duke made a mistake in the original relief request submittal by misidentifying 2006 as the year of the CNS-1 inspection. The inspection is actually scheduled to be performed in the spring of 2005, which is within the second ISI interval.

**NRC Question 2a:**

Please provide the volumetric coverage that could be obtained under current Code requirements (i.e. third interval for ONS-3 and second interval MNS-2, and CNS-1&2). You did not provide this information in your response to our request for additional information dated August 11, 2004 and your original submittal provided the coverage obtained during the last interval for each plant.

**Duke Response 2a:**

The coverage for the Flange-to-Shell Weld in each unit is shown in the table below:

Station/Unit	Coverage from the Vessel ID Using 1989 Section XI Code	Estimated Coverage from the Vessel ID Using Alternative	Coverage from the Flange Seal Surface Using 1989 Section XI Code
CNS-1	90.5%	90.5%	100%
CNS-2	90.5%	90.5%	100%
MNS-2	90.5%	90.5%	100%
ONS-3	68%	72.6%	100%

**NRC Question 2b:**

The estimated volumetric coverage for the reactor upper shell-to-flange weld at ONS-3 using the proposed alternative is 72.6 percent, which is less than the required 90 percent coverage. Please confirm whether the most critical areas susceptible to degradation (the weld + heat affected zone) will be covered using the proposed alternative.

**Duke Response 2b:**

Although this particular exam (UT from vessel wall) results in limited coverage of 72.6 percent, please note that this exam is only considered as 50% of the total examination requirement specified in ASME Section XI, Table IWB-2500-1, Category B-A, Item B1.30. Duke uses the deferral allowed by the code table to perform two partial exams, flange face and vessel wall, to be conducted at different times within the 10-year interval. Table notes (3) and (4) provide details to the user on how to implement the deferral. The flange face partial exam was previously performed during the first inspection period while the vessel wall partial exam is scheduled for the third inspection period.

In Duke's Response 2a above, the table data shows coverage of the weld and heat affected zone to be 100% by the flange face partial exam and 72.6 % by the vessel wall partial exam.

The vessel flange partial exam is unaffected by the use of the proposed alternative; however, the following particular limitations were identified for the vessel wall partial exam.

1. A limited coverage area begins at a point 1.125 inches from the weld edge on the outside surface of the flange and continues upward for a distance of 5 inches along the base material (flange forging) toward the flange seal surface. This condition exists 360° around the vessel. It is caused by a flange inside surface geometry change that limits the scanning probe from being positioned high enough to cover the entire inspection volume. The limitation is shown as a triangular area on the Attachment 2 cross-section sketch.
2. There are four clad patches above each main coolant loop nozzle that limits coverage of the outer surface of the weld and heat affected zone for 14.4 inches of the weld length above each nozzle. This limitation only applies to the axial scan from below the weld. The cumulative length of the limitation is 57.6 inches.

**Attachment 2**  
**ONS-3 Coverage Limitation Sketch**  
**(Reference Duke Response 2b)**

