



Duke Energy Corporation  
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July 1, 2003

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

ATTENTION: Document Control Desk

SUBJECT: Duke Energy Corporation  
Oconee Nuclear Station, Units 1, 2, & 3  
Docket Nos. 50-269, 50-270, 50-287  
McGuire Nuclear Station, Unit 2  
Docket No. 50-370  
Catawba Nuclear Station, Units 1 & 2  
Docket Nos. 50-413, 50-414

Relief Request for Alternative to ASME Section XI  
Relief Request 03-GO-007

Pursuant to 10 CFR 50.55a (a) (3) (i), Duke Energy Corporation (Duke) requests the use of an alternative to the ASME Boiler and Pressure Vessel Code, Section XI, IWA-2300, 1989 Edition for the remainder of the third inspection interval of Oconee Units 1, 2, and 3, and the remainder of the second inspection interval of McGuire Unit 2 and Catawba Units 1 and 2.

Specifically, Duke requests relief from the requirement to qualify and certify nondestructive examination (NDE) personnel in accordance with SNT-TC-1A, 1984 Edition with the additional requirements of ASME Section XI, IWA-2300, 1989 Edition. Duke requests approval to use, as an alternate, the requirements to qualify and certify NDE personnel in accordance with Sub-article IWA-2300 of the 1995 Edition through 1996 Addenda of Section XI utilizing the CP-189 qualification and certification program.

A detailed description of the proposed alternative and justification is included as an attachment to this letter. Additionally, an attached table provides a comparison of some of the major requirements of the 1984 Edition of SNT-TC-1A as modified by IWA-2300 of the 1989 Edition of Section XI with the 1991 Edition of CP-189 as modified by IWA-2300 of the 1995 Edition and 1996 Addenda of Section XI. Duke is requesting approval of this request by March 31, 2004, to support training of personnel for implementation during the fall outages. Questions regarding this request may be directed to R. K. Nader at 704-382-0979.

Very truly yours,

W. R. McCollum, Jr.  
Senior Vice President, Nuclear Support

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**Attachment**

**xc w/att: L. A. Reyes, Regional Administrator  
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**M. E. Shannon, Senior Resident Inspector (ONS)  
E. F. Guthrie, NRC Senior Resident Inspector (CNS)  
J. B. Brady, NRC Senior Resident Inspector (MNS)**

**Duke Energy Corporation****McGuire Unit 2****Catawba Units 1 & 2****Oconee Units 1, 2 & 3****10-YEAR INTERVAL REQUEST FOR RELIEF NO. 03-GO-007**

Pursuant to 10 CFR 50.55a (a) (3) (i), Duke Energy Corporation proposes an alternative to the requirements of ASME Section XI, IWA-2300, 1989 Edition.

**I. Code Requirement**

The 1989 Edition of ASME Section XI, IWA-2300, requires qualification of NDE personnel in accordance with a written practice developed in accordance with SNT-TC-1A, 1984 Edition as amended by IWA-2300.

10 CFR 50.55a(g)(6)(ii)(C) requires implementation of the ASME Code, Section XI, Appendix VIII and the supplements to Appendix VIII of the 1995 Edition, 1996 Addenda. By reference, this includes the requirements of Appendix VII and IWA-2300 of the 1995 Edition, 1996 Addenda. The qualification and certification of ultrasonic examiners must be to a written program in accordance with ANSI/ASNT CP-189, 1991 Edition as amended by IWA-2300.

**II. Code Requirement for which Relief is Requested**

Relief is requested from the requirement to qualify and certify nondestructive examination (NDE) personnel in accordance with SNT-TC-1A, 1984 Edition with the additional requirements of ASME Section XI, IWA-2300, 1989 Edition.

**III. Basis for Relief**

ASME Section XI, IWA-2300, 1989 Edition requires development and execution of a written practice in accordance with SNT-TC-1A, 1984 to address the qualification and certification of NDE personnel. 10 CFR 50.55a was amended in the Federal Register (67 FR 60531) to require the use of ASME Section XI, 1995 Edition with the 1996 Addenda, for ultrasonic examination with an expedited phased execution of Appendix VIII. This requires Duke Energy Corporation to develop and implement a written practice in accordance with the requirements of ANSI/ASNT CP-189, 1991 Edition for the qualification and certification of NDE personnel performing

ultrasonic examinations of components under the scope of Appendix VIII.

Duke Energy Corporation operates seven nuclear units, six of which are using the 1989 Edition of ASME Section XI and one, McGuire Unit-1, is using the 1995 Edition with the 1996 Addenda. This entails the preparation and implementation and to the extent possible, consolidation of numerous certification requirements, some of which are in conflict. Personnel certified to perform ultrasonic examinations are also certified to perform other nondestructive examinations such as magnetic particle, liquid penetrant and radiography.

A direct comparison of the implementation requirements of the 1984 Edition of SNT-TC-1A as modified by IWA-2300 of the 1989 Edition of Section XI with the 1991 Edition of CP-189 as modified by IWA-2300 of the 1995 Edition and 1996 Addenda of Section XI is considered to be too cumbersome. Therefore, the attached table provides a comparison of some of the major requirements.

#### **IV. Justification for Relief**

Utilizing the CP-189 qualification and certification requirements for NDE personnel, for the additional Subsection IWA examinations, is considered equivalent to the qualifications and certifications required by SNT-TC-1A. Additionally, CP-189 is required to be used for the Fourth 10-Year Interval of the Inservice Inspection Program for Oconee Unit-1 beginning in January, 2004 and is already in effect at McGuire Unit-1. Therefore, in lieu of maintaining redundant, possibly conflicting programs, the proposed alternative of maintaining a single program which meets the requirements of CP-189, for the qualification and certification of NDE personnel, will simplify record keeping, satisfy the need to maintain personnel qualifications and certifications, eliminate redundant systems, and provide an acceptable level of quality and safety appropriate for other NDE disciplines.

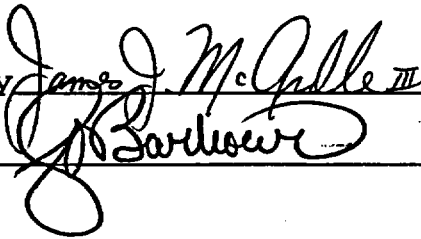
#### **V. Alternative Provision**

Qualification and certification of NDE personnel shall be conducted in accordance with the requirements contained in Sub-article IWA-2300 of the 1995 Edition through the 1996 Addenda of Section XI utilizing the CP-189 qualification and certification program.

**VI. Schedule for Implementation**

CP-189 with the additional requirements of Section XI, IWA-2300, 1995 Edition through the 1996 Addenda will be used for the remainder of the Third Inspection Interval for Oconee Units 1, 2, and 3; the Second Inspection Interval for Catawba Units 1 and 2 and the Second Inspection Interval for McGuire Unit 2.

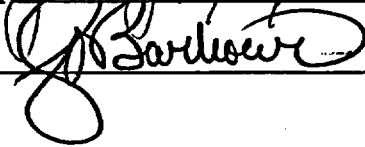
Sponsored By



Date

5-9-03

Reviewed By



Date

5/28/03

Requirement	SNT-TC-1A, 1984			CP-189, 1991			IWA-2300, 1989		IWA-2300, 1995 w/1996			
UT Training	Hours Level I/II			Hours Level I/II			Hours Level I/II		Hours Level I/II			
	GS	HS	2CL									
	40/80	40/40	30/40	40/40			80/80		80/80			
							10 hrs. annual training		10 hrs. annual training			
UT Experience	Level I	Level II		Level I Hrs.		Level II Hrs.		Level I Hrs.	Level II Hrs.		Level I Hrs.	Level II Hrs.
	months	months		Method	Total	Method	Total	250	800		250	800
	3	9		200	400	600	1200					
RT Training	Hours Level I/II			Hours Level I/II			Hours Level I/II		Hours Level I/II			
	GS	HS	2CL									
	88/80	39/40	29/35	39/40			No additional requirements		No additional requirements			
RT Experience	Level I	Level II		Level I Hrs.		Level II Hrs.		No additional requirements		No additional requirements		
	Months	months		Method	Total	Method	Total					
	3	9		200	400	600	1200					
PT Training	Hours Level I/II			Hours Level I/II			Hours Level I/II		Hours Level I/II			
	GS	HS	2CL									
	12/16	4/8	4/4	8/8			No additional requirements		No additional requirements			
PT Experience	Level I	Level II		Level I Hrs.		Level II Hrs.		No additional requirements		No additional requirements		
	months	months		Method	Total	Method	Total					
	1	2		35	130	135	270					

Notes:

1. Training: GS=grammar school, HS=high school, 2CL=2 years college
2. SNT-TC-1A allows simultaneous credit for experience in two or more NDE disciplines when at least 25% of the person's work time is spent on each method for which certification is sought. CP-189 does not allow simultaneous credit.

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Requirement	SNT-TC-1A, 1984			CP-189, 1991			IWA-2300, 1989			IWA-2300, 1995 w/1996		
ET Training	Hours Level I/II			Hours Level I/II			Hours Level I/II			Hours Level I/II		
	GS	HS	2CL									
	48/24	8/12	8/8	12/40			No additional requirements			No additional requirements		
ET Experience	Level I	Level II	Level I Hrs.		Level II Hrs.		Level I Hrs.	Level II Hrs.	Level I Hrs.	Level II Hrs.	Level I Hrs.	Level II Hrs.
	months	months	Method	Total	Method	Total	No additional requirements		No additional requirements			
	1	9	65	130	600	1200						
MT Training	Hours Level I/II			Hours Level I/II			Hours Level I/II			Hours Level I/II		
	GS	HS	2CL									
	24/16	12/8	8/4	12/8			No additional requirements			No additional requirements		
MT Experience	Level I	Level II	Level I Hrs.		Level II Hrs.		No additional requirements			No additional requirements		
	Months	months	Method	Total	Method	Total						
	1	3	65	130	200	400						
VT Training	No rules provided.			No rules provided.			Certification to levels comparable to SNT-TC-1A is required by IWA-2300			Certification to levels comparable to CP-189 is required by IWA-2300		
VT Experience	No rules provided.			No rules provided.			Certification to levels comparable to SNT-TC-1A is required by IWA-2300			Certification to levels comparable to CP-189 is required by IWA-2300		

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<b>Requirement</b>	<b>SNT-TC-1A, 1984</b>	<b>CP-189, 1991</b>	<b>IWA-2300, 1989</b>	<b>IWA-2300, 1995 w/1996</b>
<b>Level III Education and Experience</b>	4 year college, 1 year experience; or 2 years college, 2 years experience; or 4 years experience	No education or experience requirements, but ASNT Level III certificate is required.	Minimum high school graduate or GED. 4 year college, 1 year experience; or 2 years college, 2 years experience; or 4 years experience	Minimum high school graduate or GED. 4 year college, 1 year experience; or 2 years college, 2 years experience; or 4 years experience
<b>Level III Examinations</b>	Basic, Method and Specific optional. Employer may waive the examinations.	ASNT Basic and Method examinations are required. Employer administered Specific, Practical and Demonstration examinations.	Basic, Method and Specific examinations required. ASNT examinations are not required.	Basic, Method, Specific, Practical and Demonstration examinations required for initial certification. Only Method, Specific, Practical and Demonstration examinations are required for re-certification. The Practical and Demonstration examinations may be waived under certain conditions. ASNT examinations are not required.
<b>Grading of Examinations</b>	70% passing for each examination. 80% composite grade with weighting factor allowed	70% passing for each examination. 80% composite grade with simple average required.	Additional requirements for the ultrasonic method in Appendix VII.	Additional requirements for the ultrasonic method in Appendix VII.