February 9, 2000

Mr. H. B. Barron
Vice President, McGuire Site
Duke Energy Corporation
12700 Hagers Ferry Road
Huntersville, NC 28078-8985

SUBJECT: MCGUIRE NUCLEAR STATION, UNIT 1 - RE: REQUEST FOR RELIEF NO. 98-001 (TAC NO. MA4369)

Dear Mr. Barron:

By letter dated November 24, 1998, Duke Energy Corporation (DEC) requested the NRC staff to approve the Second 10-Year Interval Inservice Inspection (ISI) Request for Relief (RR) No. 98-001 for McGuire Nuclear Station, Unit 1. Additional information was provided by DEC during a conference call that occurred on October 15, 1999. The additional information provided clarification of several questions raised by the staff in a request for additional information dated September 17, 1999. The staff, with technical assistance from its contractor, the Idaho National Engineering and Environmental Laboratory (INEEL), has reviewed and evaluated the information provided by DEC.

Specifically, DEC is seeking relief from the requirements of the American Society of Mechanical Engineers (ASME) Code, Section XI, in the performance of surface and volumetric examination of welds. Part A deals with 100 percent volumetric examination of pressure retaining welds in the reactor vessel. Part B relates to 100 percent volumetric examination of full penetration welds of nozzles in vessels and inside radius sections. Part C addresses 100 percent volumetric examinations of pressure retaining dissimilar metal welds. Part D covers 100 percent volumetric and surface examination of pressure retaining welds in piping. Part E relates to 100 percent volumetric examination of pressure retaining welds in pressure vessels, and Part F pertains to 100 percent surface and volumetric examination of pressure retaining welds in austenitic stainless steel or higher alloy piping. The applicable edition of the Code is the 1986 Edition of ASME Code, Section XI.

Based on the information provided and as discussed in the enclosed Safety Evaluation (SE), the staff has authorized relief pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.55a(g)(6)(i) only for Parts B through F of the DEC's RR 98-001, for the second 10-year interval. This determination is based on the impracticality of performing the required inspections and on our conclusion that the proposed examinations provide reasonable assurance of structural integrity of the subject welds for Parts B through F of the licensee's Request for Relief No. 98-001.

The staff is not granting approval of Part A of the licensee's Request for Relief No. 98-001, per discussion presented in the enclosed SE.

The staff considers this matter resolved and is closing out TAC No. MA4369.

Sincerely,

/RA/

Richard L. Emch Jr., Chief, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-369

Enclosure: Safety Evaluation

cc w/encl: See next page

The staff is not granting approval of Part A of the licensee's Request for Relief No. 98-001, per discussion presented in the enclosed SE.

The staff considers this matter resolved and is closing out TAC No. MA4369.

Sincerely,

/RA/

Richard L. Emch Jr., Chief, Section 1
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cc w/encl: See next page

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SECOND 10-YEAR INTERVAL INSERVICE INSPECTION

REQUESTS FOR RELIEF NO. 98-001

DUKE ENERGY CORPORATION

MCGUIRE NUCLEAR STATION, UNIT 1

DOCKET NO. 50-369

1.0 INTRODUCTION

Inservice inspection (ISI) of the American Society of Mechanical Engineers (ASME) Code Class 1, 2, and 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel (B&PV) Code and applicable addenda as required by Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.55a(g), except where specific written relief has been granted by the Commission pursuant to 10 CFR 50.55a(6)(g)(i). Section 50.55a(a)(3) states that alternatives to the requirements of paragraph (g) may be used, when authorized by the NRC, if (i) the proposed alternatives would provide an acceptable level of quality and safety or (ii) compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

Pursuant to 10 CFR 50.55a(g)(4), ASME Code Class 1, 2, and 3 components (including supports) shall meet the requirements, except the design and access provisions and the pre-service examination requirements, set forth in the ASME Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," to the extent practical within the limitations of design, geometry, and materials of construction of the components. The regulations require that inservice examination of components and system pressure tests conducted during the first 10-year interval and subsequent intervals comply with the requirements in the latest edition and addenda of Section XI of the ASME Code incorporated by reference in 10 CFR 50.55a(b) twelve months prior to the start of the 120-month interval, subject to the limitations and modifications listed therein. For McGuire Nuclear Station, Unit 1 the applicable edition of Section XI of the ASME Code for the second 10-year ISI interval is the 1986 Edition.

2.0 EVALUATION

By letter dated November 24, 1998, Duke Energy Corporation (the licensee), submitted second interval requests for relief for McGuire Nuclear Station, Unit 1. In response to a Request for Additional Information dated September 17, 1999, clarification of several issues was offered via a conference call that occurred on October 15, 1999. The Idaho National

Enclosure

Engineering and Environmental Laboratory (INEEL) staff's evaluation of the subject request for relief is provided as an Attachment -- Technical Letter Report (TLR) -- to this safety evaluation. Based on the results of the review, the staff adopts the contractor's conclusions presented in the TLR.

The information provided by the licensee in support of the requests for relief from Code requirements has been evaluated and the basis for disposition is documented below.

Request for Relief No. 98-001 (Part A):

ASME Code, Section XI, Examination Category B-A, Item B1.30, requires 100 percent volumetric examination of pressure retaining welds in reactor vessels, as defined in Figure IWB-2500-4.

Pursuant to 10 CFR 50.55a(g)(5)(iii), the licensee requested relief from the Code-required volumetric examinations of the flange-to-upper shell weld number 1RPV7-442.

Complete volumetric examination of the subject RPV flange-to-upper shell weld is limited due to the proximity of the stud holes for the reactor head. The licensee completed approximately 57 percent of the Code-required volume. However, the licensee's submittal also includes the following statement:

> "Since this examination was performed, Duke Energy has modified the ultrasonic procedure to achieve greater than 90% coverage of the required volume."

Code Case N-460, which has been adopted by the licensee, defines "essentially 100%" examination coverage as being greater than 90% of the Code-required weld volume. This Code Case has been approved for use by the staff in Regulatory Guide 1.147. Based on the licensee's statement, it appears that the volumetric examination requirement, as defined by the Code Case, may be satisfied through a procedural modification. Therefore, the licensee's basis for impracticality is not justified and the Code-required examinations should be performed prior to the end of the current interval.

Based on the fact that >90 percent coverage is obtainable through modifications to the examination procedure, thereby allowing Code Case N-460 requirements to be met, the licensee's basis for impracticality has not been demonstrated and this request is not granted under 10 CFR 50.55a(g)(6)(i). The staff will evaluate a separate request for this weld should the licensee resubmit a proposed alternative in accordance with 10 CFR 50.55a(a)(3).

Request for Relief No. 98-001 (Part B):

ASME Code, Section XI, Examination Category B-D, Items B3.90, B3.100, B3.110 and B3.120, require 100 percent volumetric examination of full penetration welds of nozzles in vessels and inside radius sections as defined in Figures IWB-2500-7 (a) through (d).

Pursuant to 10 CFR 50.55a(g)(5)(iii), the licensee requested relief from the Code-required volumetric examinations listed in a table in Section 2.2 of the contractor's TLR.

Complete volumetric examination of the subject RPV and Pressurizer nozzle-to-vessel welds and inner radius sections is limited due to the radius of curvature in the transition area between the nozzle and the vessel shell, and geometric design configurations limiting access to a single side. These conditions make the Code coverage requirements impractical to meet for the subject welds. In order to meet the Code requirements, the nozzles and/or subject vessels would have to be modified to facilitate access for ultrasonic search units. Imposition of these requirements would be a significant burden on the licensee.

The licensee has completed approximately 43-74 percent coverage of the subject nozzles. The volumetric coverage obtained on the accessible portion of the subject components and the volumetric examinations of other Class 1 nozzles provides reasonable assurance of structural integrity of the subject welds. Relief is granted pursuant to 10 CFR 50.55a(g)(6)(i).

Request for Relief No. 98-001 (Part C):

ASME Code, Section XI, Examination Category B-F, Item B5.70, requires 100 percent volumetric and surface examination of pressure retaining dissimilar metal welds, as defined in Figure IWB-2500-8.

Pursuant to 10 CFR 50.55a(g)(5)(iii), the licensee requested relief from the Code-required volumetric examinations for the pressure retaining dissimilar metal welds listed in the contractor's TLR, Section 2.3.

Complete volumetric examination of the subject nozzle-to-safe-end and safe-end-to-pipe welds is limited due to the coarse-grained material characteristics that cause attenuation of the ultrasonic energy and beveled nozzle side component geometry; both contribute to limiting the inspection access to a single side. The geometric design configuration and austenitic material properties make the Code coverage requirements impractical to meet for the subject welds. In order to meet the Code requirements, the nozzles would have to be modified to facilitate access for ultrasonic inspection. Imposition of these requirements would create a significant burden on the licensee.

The licensee has completed 47-48 percent composite coverage of the subject welds in addition to the Code required surface examinations. Furthermore, the subject welds were removed and new welds fabricated during the steam generator replacement (1EOC11 outage) and the new welds received complete radiographic examination.

Based on the volumetric coverage obtained on the accessible portion of the subject welds, the complete surface examinations performed, and the replacement of these welds, the staff concludes that these examinations provide reasonable assurance of the structural integrity of the subject welds. Relief is granted pursuant to 10 CFR 50.55a(g)(6)(i).

Request for Relief No. 98-001 (Part D):

ASME Code, Section XI, Examination Category B-J, Items B9.11 and B9.31 require 100 percent volumetric and surface examination of pressure retaining welds in piping, as defined in Figures IWB-2500-8,9,10 and 11.

Pursuant to 10 CFR 50.55a(g)(5)(iii), the licensee requested relief from the Code-required volumetric examinations of the circumferential and branch connection welds listed Section 2.4 of the contractor's TLR.

Complete volumetric examination of the subject welds is limited due to the coarse-grained material characteristics that cause attenuation of the ultrasonic energy and single sided access caused by elbow-to-pump and nozzle transition geometry. The geometric design configuration and austenitic material characteristics make complete volumetric examinations impractical to perform on the subject welds. In order to meet the Code requirements, the branch connections and elbow to pump welds would have to be modified to facilitate scanning from both sides of the weld. Imposition of these requirements would be a significant burden on the licensee.

The licensee has completed a significant portion (48-90% composite coverage) of the subject welds. Additionally, the subject welds are part of a larger population of Class 1 pressure retaining welds that were examined during the interval. These examinations provide reasonable assurance of the structural integrity of the subject pressure retaining welds. Relief is granted pursuant to 10 CFR 50.55a(g)(6)(i).

Request for Relief No. 98-001 (Part E):

ASME Code, Section XI, Examination Category C-A, Item C1.30, requires 100 percent volumetric examination of pressure retaining welds in pressure vessels, as defined in Figure IWC-2500-2.

Pursuant to 10 CFR 50.55a(g)(5)(iii), the licensee requested relief from the Code-required volumetric examinations of steam generator tubesheet-to-shell weld number 1SGA-02-03.

Complete volumetric examination of the subject weld is limited due to the proximity of secondary side inspection ports and branch connection piping making complete volumetric examinations impractical to perform on the subject welds. In order to meet the Code requirements, the inspection ports and branch connection piping would have to be relocated away from the subject weld to facilitate access for ultrasonic search units. Imposition of these requirements would be a significant burden on the licensee.

The licensee completed a significant portion (approximately 87 percent) of the subject weld and no significant flaws were noted. Additionally, the steam generators have subsequently been replaced, including removal of the subject welds and installation of replacement welds. The new steam generators were fully inspected by the manufacturer prior to installation and the replacement components are subject to the same Code examinations. The examinations that were completed provide reasonable assurance of structural integrity of the subject welds. Relief is granted pursuant to 10 CFR 50.55a(g)(6)(i).

Request for Relief No. 98-001 (Part F):

ASME Code, Section XI, Examination Category C-F-1, Item C5.21 requires 100 percent surface and volumetric examination of pressure retaining welds in austenitic stainless steel or high alloy piping, as defined in Figure IWC-2500-7.

Pursuant to 10 CFR 50.55a(g)(5)(iii), the licensee requested relief from the Code-required volumetric examinations of pipe-to-flange weld number 1NI18-1.

Complete volumetric examination of the subject welds is impractical due to the coarse-grained material characteristics that cause attenuation of the ultrasonic energy and single sided access due to the pipe-to-flange geometry. To meet the Code requirements for volumetric examination, the subject weld and/or adjoining components would require significant re-design or replacement. The Code coverage volumetric requirements are impractical for the subject weld. Imposition of this requirement would be a significant burden on the licensee.

The licensee has completed a significant portion (approximately 87 percent) of the Code-required volumetric and 100 percent of the required surface examinations of the subject weld. The Code-required surface and volumetric examinations completed provide reasonable assurance of the structural integrity of the subject weld. Relief is granted pursuant to 10 CFR 50.55a(g)(6)(i).

3.0 CONCLUSION

For Request for Relief 98-001, (Parts B through F) outlined above, the staff concludes that the Code requirements are impractical for the subject welds and that the examinations performed reasonable assurance of structural integrity of the subject welds. Relief is granted pursuant to 10 CFR 50.55a(g)(6)(i).

For Request for Relief 98-001, Part A, the licensee has not demonstrated that the Code requirements are impractical. Relief is denied.

Attachment: Technical Letter Report

Principal Contributor: T. McLellan

Date: February 9, 2000

TECHNICAL LETTER REPORT
ON THE SECOND 10-YEAR INTERVAL INSERVICE INSPECTION
REQUEST FOR RELIEF 98-001
FOR
DUKE ENERGY CORPORATION
WILLIAM B. MCGUIRE NUCLEAR STATION, UNIT 1
DOCKET NUMBER: 50-369

1. INTRODUCTION

By letter dated November 24, 1998, the licensee, Duke Energy Corporation, submitted Request for Relief 98-001, seeking relief from the requirements of the ASME Code, Section XI, for the William B. McGuire Nuclear Station, Unit 1, second 10-year inservice inspection (ISI) interval. In response to a Request for Additional Information (RAI) dated September 17, 1999, clarification of several issues was offered via a conference call that occurred on October 15, 1999. The Idaho National Engineering and Environmental Laboratory (INEEL) staff's evaluation of the subject request for relief is in the following section.

2. EVALUATION

The information provided by Duke Energy Corporation in support of the request for relief from Code requirements has been evaluated and the bases for disposition are documented below. The Code of record for the William B. McGuire Nuclear Station, second 10-year ISI interval, which began December 1, 1992, is the 1986 Edition of Section XI of the ASME Boiler and Pressure Vessel Code.

2.1 Request for Relief No. 98-001 (Part A) Examination Category B-A, Pressure Retaining Welds in Reactor Vessels

Code Requirement: Examination Category B-A, Item B1.30, requires 100% volumetric examination of pressure retaining welds in reactor vessels, as defined in Figure IWB-2500-4.

Licensee's Code Relief Request: In accordance with 10 CFR 50.55a(g)(5)(iii), the licensee requested relief from the Code-required volumetric examinations of the flange-to-upper shell Weld No. 1RPV7-442.

Licensee's Basis for Requesting Relief (as stated):

"During the ultrasonic examination of the Reactor Vessel Flange to Upper Shell Weld 1RPV7-442 (Item Number B01.030.001) coverage of the required examination volume could not be obtained. The examination coverage when scanning from the flange seal surface was limited to 57.41%. Limitations were caused by the proximity of stud holes. Since this examination was performed, Duke Energy has modified the ultrasonic procedure to achieve greater than 90% coverage of the required volume.

"This weld joins the reactor vessel flange to the upper shell (nozzle belt). The principal limitation for this weld is the stud holes for the reactor head that limit the scanning area.

Therefore, the 100% volumetric examination is impractical for this weld. The imposition of this requirement would create a considerable burden on Duke Energy Corporation.

"Although the examination volume requirement as defined in ASME Section XI 1986 Edition, Figure IWB-2500-4 could not be met, the amount of coverage obtained for these examinations provides an acceptable level of quality and integrity.

"The Reactor Pressure Vessel (RPV) Flange to Upper Shell Weld (Weld Number 1RPV7-442) is by definition not in the beltline area of the RPV; therefore, it is not subject to fluence levels equal to or greater than 1 E7 n/cm^2. RPV materials not in the highly irradiated beltline region are not prone to negative material property changes (i.e., embrittlement) associated with neutron bombardment. Based upon 10 CFR 50.55a, the ASME Code Section XI 1986 Edition requires essentially 100% RPV weld volumetric examinations of beltline welds during every inspection interval. The RPV Flange to Upper Shell Weld does not meet the requirements of a beltline weld due to a significantly lower fluence exposure, resulting in far less potential degradation of ductility. The McGuire Nuclear Station Unit 1 RPV was fabricated by the Combustion Engineering Company and is free from unacceptable fabrication defects. Combustion Engineering performed rigorous state-of-the-art inspections following fabrication to ensure no significant flaws existed.

"The flange to upper shell configuration and location of the stud holes in the proximity of the RPV Flange to Upper Shell Weld prevents obtaining 100% volumetric examination coverage; therefore, the 100% examinations are impractical. Elimination of the stud holes and/or ultrasonic examination from the inside surface of the head are not viable alternatives and would create an undue burden on Duke Energy Corporation."

Licensee's Proposed Alternative Examination (as stated):

"The use of radiography as an alternate volumetric examination for all the above listed components is not practical due to component thickness and geometric configurations. Other restrictions making radiography impractical are the physical barriers prohibiting access for placement of source, film, image quality indicator, etc.

"Since radiography is impractical, Duke Energy Corporation will continue to use ultrasonic examination to obtain maximum coverage to the extent practicable of the Item Numbers referenced in Section I of the Request for Relief. No additional ultrasonic examinations are planned during the current interval for the welds referenced in Section I of the request.

"For the Class 1 Component listed in Section I above, Duke Energy proposes to use the pressure test to compliment the limited examination coverage. The Code requires (reference Table IWB-2500-1, Item Number B15) that a system leakage test be performed after each refueling outage. Additionally a system hydrostatic test (reference Table IWB-2500-1, Item Number B15) is required once during each 10-year inspection interval. These tests require a VT-2 visual examination for evidence of leakage. This testing will provide adequate assurance of pressure boundary integrity."

Evaluation: The Code requires 100% volumetric examination of the subject Reactor Pressure Vessel (RPV) flange-to upper shell welds. Pursuant to 10 CFR 50.55a(g)(5)(iii) the licensee

has requested relief based on the impracticality of performing 100% volumetric examination on Weld No. 1RPV7^{s1} submitted by the licensee tend to support the determination that complete volumetric examination of the subject RPV flange-to-upper shell weld is limited due to the proximity of the stud holes for the reactor head. The licensee completed approximately 57% of the Code-required volume. However, the licensee's submittal also includes the following statement:

"Since this examination was performed, Duke Energy has modified the ultrasonic procedure to achieve greater than 90% coverage of the required volume."

Code Case N-460, which has been adopted by the licensee, defines "essentially 100%" examination coverage as being greater than 90% of the Code-required weld volume. This Code Case has been approved for use by the Staff in Regulatory Guide 1.147. Based on the licensee's statement, it appears that the volumetric examination requirement, as defined by the Code Case, may be satisfied through a procedural modification. Therefore, the licensee's basis for impracticality is not justified and the Code-required examinations should be performed prior to the end of the current interval.

Based on the fact that >90% coverage is obtainable through modifications to the examination procedure, thereby allowing Code Case N-460 requirements to be met, the licensee's basis for impracticality has not been demonstrated and it is recommended that this request not be granted under 10 CFR 50.55a(g)(6)(i). The Staff may consider evaluating a separate request for this weld, should the licensee re-submit a proposed alternative in accordance with 10 CFR 50.55a(a)(3).

2.2 Request for Relief No. 98-001 (Part B) Examination Category B-D, Full Penetration Welds of Nozzles in Vessels - Inspection Program B

Code Requirement: Examination Category B-D, Items B3.90, B3.100, B3.110 and B3.120, require 100% volumetric examination of full penetration welds of nozzles in vessels, and inside radius sections as defined in Figures IWB-2500-7 (a) through (d).

Licensee's Code Relief Request: In accordance with 10 CFR 50.55a(g)(5)(iii), the licensee requested relief from the Code-required volumetric examinations of the following nozzle to vessel welds and nozzle inside radius sections:

WELD ITEM	DESCRIPTION	COVERAGE	LIMITATION	1RPV5-445E
B3.90	Nozzle to Vessel Weld	43%	Nozzle Geometry	1RPV5-445F
B3.90	Nozzle to Vessel Weld	43%	Nozzle Geometry	1RPV5-445G
B3.90	Nozzle to Vessel Weld	43%	Nozzle Geometry	1RPV5-445H
B3.90	Nozzle to Vessel Weld	43%	Nozzle Geometry	1RPV5-445ER
B3.100	Nozzle Inside Radius Section	74%	Nozzle Geometry	1RPV5-445FR
B3.100	Nozzle Inside Radius Section	74%	Nozzle Geometry	1RPV5-445GR
B3.100	Nozzle Inside Radius Section	74%	Nozzle Geometry	1RPV5-445HR
B3.100	Nozzle Inside Radius Section	74%	Nozzle Geometry	1PZR-12
B3.110	Pressurizer Nozzle to Vessel Weld	67%	Nozzle Geometry	1PZR-15
B3.110	Pressurizer Nozzle to Vessel Weld	67%	Nozzle Geometry	1PZR-16
B3.110	Pressurizer Nozzle to Vessel Weld	67%	Nozzle Geometry	1PZR-12
B3.120	Pressurizer Nozzle Inside Radius Section	63%	Nozzle Geometry	1PZR-15
B3.120	Pressurizer Nozzle Inside Radius Section	63%	Nozzle Geometry	
1PZR-16	B3.120	Pressurizer Nozzle Inside Radius Section	63%	Nozzle Geometry

Licensee's Basis for Requesting Relief (as stated):

"During the ultrasonic examination of the Reactor Vessel Outlet Nozzle to Shell Welds (1RPV5-445E, 1RPV5-445F, 1RPV5-445G and1RPV5-445H) shown in Attachment 1 and 2, coverage of the required examination volume was limited to 43%. Limitations caused by the nozzle geometry, i.e. the nozzle taper, prevented obtaining greater than 90% coverage. In order to achieve additional coverage, the nozzles would have to be re-designed to eliminate the taper.

"The four Outlet Nozzle to Shell Welds were limited due to the reactor vessel nozzle configuration. Therefore, the 100% volumetric examination is impractical for this weld. The imposition of this requirement would create a considerable burden on Duke Energy Corporation. During the examination of these welds, techniques we utilized to obtain the maximum possible coverage.

"During the ultrasonic examination of the Reactor Vessel Outlet Nozzle to Shell Welds Inside Radius Sections (1RPV5-445ER, 1RPV5-445FR, 1RPV5-445GR and1RPV5-445HR) shown in Attachment 1 and 2, coverage of the required examination volume was limited to 74%. Limitations caused by the nozzle geometry, i.e. the nozzle taper prevented obtaining greater than 90% coverage. In order to achieve additional coverage, the nozzles would have to be re-designed to eliminate the taper.

"These four Outlet Nozzle Inner Radius Sections are limited due to the reactor vessel nozzle configuration. Therefore, the 100% volumetric examination is impractical for this weld. The imposition of this requirement would create a considerable burden on Duke Energy Corporation. During the examination of these welds, techniques we utilized to obtain the maximum possible coverage.

"During the ultrasonic examination of the Pressurizer Nozzle to Upper Head Welds (1PZR-12, 1PZR-15 and 1PZR-16) shown in Attachment 1 and 3, coverage of the required examination volume could not be obtained. The examination coverage was limited to 67%, due to single sided access caused by the nozzles geometry. In order to achieve additional coverage, the nozzle would have to be re-designed to eliminate the taper.

"These three Pressurizer to Nozzle Upper Head Welds are limited due to single sided access caused by the nozzle geometry. In order to achieve more coverage, the nozzles would have to be re-designed to allow access from both sides. Therefore, the 100% volumetric examination is impractical for this weld. The imposition of this requirement would create a considerable burden on Duke Energy Corporation. During the examination of these welds, techniques we utilized to obtain the maximum possible coverage.

"During the ultrasonic examination of the Pressurizer Nozzle to Upper Head Welds Inside Radius Sections (1PZR-12R, 1PZR-15R and 1PZR-16R) shown in Attachment 1 and 3, coverage of the required examination volume could not be obtained. The examination coverage was limited to 63%, limitations are caused by the ratio of the nozzle O.D. too the vessel thickness. When the nozzle O.D. is large in relation to the vessel thickness, less coverage can be obtained when scanning from the vessel side.

"These three Pressurizer to Nozzle Upper Head Welds (Inside Radius Sections) are limited due to the ratio of nozzle O.D. to vessel thickness. When the nozzle O.D. is large in relation to

the vessel thickness, less coverage can be obtained when scanning from the vessel side. Therefore, the 100% volumetric examination is impractical for this weld. The imposition of this requirement would create a considerable burden on Duke Energy Corporation. During the examination of these welds, techniques we utilized to obtain the maximum possible coverage.

"Although the examination volume requirements as defined in ASME Section XI 1986 Edition, Figure IWB-2500-7 could not be met, the amount of coverage obtained for these examinations provides an acceptable level of quality and integrity.

"The Reactor Pressure Vessel (RPV) Outlet Nozzle to Shell Welds (Weld Numbers 1RPV5-445E, 1RPV5-445F, 1RPV5-445G, 1RPV5-445H and 1RPV5-445ER,1RPV5-445FR, 1RPV5-445GR, 1RPV5-445HR) are by definition not in the beltline area of the RPV; therefore, it is not subject to fluence levels equal to or greater than 1 E7 n/cm^2. RPV materials not in the highly irradiated beltline region are not prone to negative material property changes (i.e., embrittlement) associated with neutron bombardment. Based upon 10 CFR 50.55a, the ASME Code Section XI 1986 Edition requires essentially 100% RPV weld volumetric examinations of beltline welds during every inspection interval. The RPV Flange to Upper Shell Weld does not meet the requirements of a beltline weld due to a significantly lower fluence exposure, resulting in far less potential degradation of ductility. The McGuire Nuclear Station Unit 1 RPV was fabricated by the Combustion Engineering Company is free from unacceptable fabrication defects. Combustion Engineering performed rigorous state-of-the-art inspections following fabrication to ensure no significant flaws existed.

"The Pressurizer Nozzle to Upper Head Welds (Weld Number 1PRZ-12, 1PRZ-15, 1PRZ-16 and Numbers 1PRZ-12R, 1PRZ-15R, 1PRZ-16R) are located on the upper head of the pressurizer and are not part of the reactor pressure vessel. These welds are not exposed to significant neutron fluence and are not prone to negative material property changes (i.e., embrittlement) associated with neutron bombardment. The McGuire Nuclear Station Unit 1 Pressurizer was fabricated by Westinghouse and is free from unacceptable fabrication defects. Westinghouse performed rigorous state-of-the-art inspections following fabrication to ensure no significant flaws existed.

"The McGuire Unit 1 RPV Outlet Nozzle geometry and Pressurizer Nozzle to Upper Head Weld geometry prevents obtaining 100% volumetric examination coverage and the 100% examinations are impractical. Replacement or re-design of these nozzles is not a viable alternative and would create undue burden on Duke Energy Corporation."

Licensee's Proposed Alternative Examination (as stated):

"The use of radiography as an alternate volumetric examination for all the above listed components is not practical due to component thickness and geometric configurations. Other restrictions making radiography impractical are the physical barriers prohibiting access for placement of source, film, image quality indicator, etc.

"Since radiography is impractical, Duke Energy Corporation will continue to use ultrasonic examination to obtain maximum coverage to the extent practicable of the Item Numbers referenced in Section I of the Request for Relief. No additional ultrasonic examinations are planned during the current interval for the welds referenced in Section I of the request.

"For the Class 1 Component listed in Section I above, Duke Energy proposes to use the pressure test to compliment the limited examination coverage. The Code requires (reference Table IWB-2500-1, Item Number B15) that a system leakage test be performed after each refueling outage. Additionally a system hydrostatic test (reference Table IWB-2500-1, Item Number B15) is required once during each 10-year inspection interval. These tests require a VT-2 visual examination for evidence of leakage. This testing will provide adequate assurance of pressure boundary integrity."

Evaluation: The Code requires 100% volumetric examination of all Class 1 nozzle-to-vessel welds and inner radius sections. However, as demonstrated by the reports and sketches submitted by the licensee, complete volumetric examination of the subject RPV and Pressurizer nozzle-to-vessel welds and inner radius sections is limited due to the radius of curvature in the transition area between the nozzle and the vessel shell, and geometric design configurations limiting access to a single side. These conditions make the Code coverage requirements impractical to meet for the subject welds. In order to meet the Code requirements, the nozzles and/or subject vessels would have to be modified to facilitate access for ultrasonic search units. Imposition of these requirements would create a considerable burden on the licensee.

The licensee has completed approximately 43-74% coverage of the subject nozzles. Therefore, based upon the volumetric coverage obtained on the accessible portion of the subject components and the volumetric examinations of other Class 1 nozzles, it is concluded that existing patterns of degradation, if present, would have been detected and reasonable assurance of the structural integrity of the subject welds has been provided. Therefore, it is recommended that relief be granted pursuant to 10 CFR 50.55a(g)(6)(i).

2.3 Request for Relief No. 98-001 (Part C) Examination Category B-F, Pressure Retaining Dissimilar Metal Welds

Code Requirement: Examination Category B-F, Item B5.70, requires 100% volumetric and surface examination of pressure retaining dissimilar metal welds, as defined in Figure IWB-2500-8.

Licensee's Code Relief Request: In accordance with 10 CFR 50.55a(g)(5)(iii), the licensee requested relief from the Code-required volumetric examinations for the following pressure retaining dissimilar metal welds.

WELD	ITEM	DESCRIPTION	COVERAGE	LIMITATION 1SGD-INLET-SE
B5.70	Nozzle to Safe End Butt Weld	48.6%	Component Geometry/Material Characteristics	1SGD-OUTLET-SE
B5.70	Nozzle to Safe End Butt Weld	47.3%	Component Geometry/Material Characteristics	1NC1F-4-2
B5.130	Piping Dissimilar Metal Butt Weld	48.6%	Component Geometry/Material Characteristics	1NC1F-4-3
B5.130	Piping Dissimilar Metal Butt Weld	47.3%	Component Geometry/Material Characteristics	

Licensee's Basis for Requesting Relief (as stated):

"These four Dissimilar Metal Butt Welds are limited due to material characteristics and single sided access caused by the component geometry that prevents two beam path direction coverage of the examination volume. In order to obtain the required two beam path direction coverage, these four welds would have to be re-designed to allow scanning from both sides. The Steam Generator Nozzle to Safe End Butt Welds (Weld Number 1SGD-INLET-SE and 1SGD-OUTLET-SE) are located on the inlet and outlet of the steam generators for the reactor coolant piping. The McGuire Unit 1 Steam Generator Nozzle to Safe End Weld geometry prevented obtaining 100% volumetric examination coverage and therefore the 100% examinations are impractical. During the examination of these welds, techniques were utilized to obtain the maximum possible coverage. Reference Attachment 4&5 for scan coverage.

"Although the examination volume requirements as defined in ASME Section XI 1986 Edition, Figure IWB-2500-8 could not be met, the amount of coverage obtained for these examinations provided an acceptable level of quality and integrity. Furthermore, these welds were cut out and re-welded during the steam generator replacement (1EOC11 outage). These new welds received a complete radiographic examination. There is no safety significance to the lack of weld examination coverage for the previous cycle."

Licensee's Proposed Alternative Examination (as stated):

"The use of radiography as an alternate volumetric examination for all the above listed components is not practical due to component thickness and geometric configurations. Other restrictions making radiography impractical are the physical barriers prohibiting access for placement of source, film, image quality indicator, etc.

"Since radiography is impractical, Duke Energy Corporation will continue to use ultrasonic examination to obtain maximum coverage to the extent practicable of the Item Numbers referenced in Section I of the Request for Relief. No additional ultrasonic examinations are planned during the current interval for the welds referenced in Section I of the request.

"For the Class 1 Component listed in Section I above, Duke Energy proposes to use the pressure test to compliment the limited examination coverage. The Code requires (reference Table IWB-2500-1, Item Number B15) that a system leakage test be performed after each refueling outage. Additionally a system hydrostatic test (reference Table IWB-2500-1, Item Number B15) is required once during each 10-year inspection interval. These tests require a VT-2 visual examination for evidence of leakage. This testing will provide adequate assurance of pressure boundary integrity."

Evaluation: The Code requires 100% volumetric and surface examination of Class 1 pressure retaining dissimilar metal welds. However, as demonstrated by the reports and sketches submitted by the licensee, complete volumetric examination of the subject nozzle-to-safe-end and safe-end-to-pipe welds is limited due to the coarse-grained material characteristics that cause attenuation of the ultrasonic energy, and beveled nozzle side component geometry; both contributing to limit the inspection access to a single side. Therefore, the geometric design configuration and austenitic material properties make the Code coverage requirements

impractical to meet for the subject welds. In order to meet the Code requirements, the nozzles would have to be modified to facilitate access for ultrasonic inspection. Imposition of these requirements would create a considerable burden on the licensee.

The licensee has completed 47-48% composite coverage of the subject welds in addition to the Code required surface examinations. Furthermore, the subject welds were removed and new welds fabricated during the steam generator replacement (1EOC11 outage) and the new welds received complete radiographic examination. Therefore, based upon the volumetric coverage obtained on the accessible portion of the subject welds, the complete surface examinations performed, and the subsequent removal of these welds from the system, it is concluded that existing patterns of degradation, if present, would have been detected and reasonable assurance of the structural integrity of the subject and similar welds has been provided. Therefore, it is recommended that relief be granted pursuant to 10 CFR 50.55a(g)(6)(i).

2.4 Request for Relief No. 98-001 (Part D) Examination Category B-J, Pressure Retaining Welds in Piping

Code Requirement: Examination Category B-J, Items B9.11 and B9.31 require 100% volumetric and surface examination of pressure retaining welds in piping, as defined in Figures IWB-2500-8,9,10 and 11.

Licensee's Code Relief Request: In accordance with 10 CFR 50.55a(g)(5)(iii), the licensee requested relief from the Code-required volumetric examinations of the following circumferential and branch connection welds.

WELD ITEM	DESCRIPTION	COVERAGE	LIMITATION	1NC1F-1-6
B9.11	Circumferential Welds	53.55%	Pump Geometry	1NC1F-1850
B9.11	Circumferential Welds	81.94%	Nozzle Transition Geometry	1NC1F-539
B9.11	Circumferential Welds	78%	Diametric Shrinkage	1NC1F-542
B9.11	Circumferential Welds	77.50%	Nozzle Transition Geometry	1NC1F-544
B9.11	Circumferential Welds	90%	Nozzle Transition Geometry	1NC1F-1746
B9.11	Circumferential Welds	53%	Nozzle Transition Geometry	1NC47-WN4A
B9.31	Branch Connection Welds	49.5%	Branch Connection Geometry	1NC47-WN4B
B9.31	Branch Connection Welds	48.2%	Branch Connection Geometry	1NC47-WN6
B9.31	Branch Connection Welds	49.5%	Branch Connection Geometry	

Licensee's Basis for Requesting Relief (as stated):

"During the ultrasonic examination of the Reactor Coolant Pump 1A to Pipe, Weld Number 1NC1F-1-6, shown in Attachment 6, coverage of the required examination volume was limited due to single sided access caused by the elbow to pump geometry which prevented scanning from both sides of the weld.

"During the ultrasonic examination of the Nozzle to Elbow Weld, Weld Number 1NC1F-1850, shown in Attachment 7, coverage of the required examination volume was limited because no scan could be performed from the nozzle side of the weld due to the nozzle transition.

"During the ultrasonic examination of the Pipe to Elbow, Weld Number 1NC1F-539, shown in Attachment 8, coverage of the required examination volume was limited due to diametric shrinkage of the pipe side of the weld. In order to obtain greater than 90% coverage, the base metal adjacent to the weld would have to be built up with the addition of weld metal to improve the transition.

"During the ultrasonic examination of the Nozzle to Elbow Weld, Weld Number 1NC1F-542, shown in Attachment 9, coverage of the required examination volume could not be obtained. The examination coverage was limited because no scan could be performed from the nozzle due to the nozzle transition.

"During the ultrasonic examination of the Nozzle to Elbow Weld, Weld Number 1NC1F-544, shown in Attachment 10, coverage of the required examination volume could not be obtained. The examination coverage was limited because no scan could be performed from the nozzle due to the nozzle transition.

"During the ultrasonic examination of the Reactor Coolant Pump 1A to Pipe, Weld Number 1NC1F-1746, shown in Attachment 11, coverage of the required examination volume could not be obtained. The examination coverage was limited because no scan could be performed from the nozzle due to the nozzle transition.

"During the ultrasonic examination of the Pipe to Nozzle Branch Connection, Weld Number 1NC47-WN4A, shown in Attachment 12, coverage of the required examination volume could not be obtained. The examination coverage was limited due to the single sided access caused by the branch connection geometry that prevents scanning from both sides of the weld.

"During the ultrasonic examination of the Pipe to Nozzle Branch Connection, Weld Number 1NC47-WN4B, shown in Attachment 13, coverage of the required examination volume could not be obtained. The examination coverage was limited due to the single sided access caused by the branch connection geometry that prevents scanning from both sides of the weld.

"During the ultrasonic examination of the Pipe to Nozzle Branch Connection, Weld Number 1NC47-WN6, shown in Attachment 14, coverage of the required examination volume could not be obtained. The examination coverage was limited due to the single sided access caused by the branch connection geometry that prevents scanning from both sides of the weld.

"In order to obtain the required coverage these welds would have to be re-designed. The 100% volumetric examination is impractical due to nozzle or weld material geometry, or branch piping interference's. Replacement or re-design of this Class 1 piping is not a viable alternative and would create an undue burden on Duke Energy Company. During the examination of these welds, techniques were utilized to obtain the maximum possible coverage.

"Although the examination volume requirements as defined in ASME Section XI 1986 Edition, Figure IWB-2500-8 thru -11 could not be met, the amount of coverage obtained for these examinations provided an acceptable level of quality and integrity.

"The reactor coolant system piping and branch nozzle welds listed above are located on the McGuire Unit 1 reactor coolant loop piping. These welds are not exposed to significant neutron fluence and are not prone to negative property changes (i.e., embrittlement) associated with neutron bombardment. These welds were rigorously inspected by radiography and dye penetrant during construction and verified to be free from unacceptable fabrication defects. If a leak were to occur at any of the welds in question, the reactor coolant leakage calculation which is normally performed daily (and required by Technical Specifications to be performed every 72 hours) would provide an early indication of leakage. The unidentified leakage specification in Technical Specification 3.4.6.2 is 1 gpm. Several other indicators such as containment radiation monitors EMF-38, -39, and -40, the containment floor and equipment sump levels, containment humidity instruments and the ventilation unit condensate drain tank level would provide early indication of weld leakage for Operations and Engineering evaluation."

Licensee's Proposed Alternative Examination (as stated):

"The use of radiography as an alternate volumetric examination for all the above listed components is not practical due to component thickness and geometric configurations. Other restrictions making radiography impractical are the physical barriers prohibiting access for placement of source, film, image quality indicator, etc.

"Since radiography is impractical, Duke Energy Corporation will continue to use ultrasonic examination to obtain maximum coverage to the extent practicable of the Item Numbers referenced in Section I of the Request for Relief. No additional ultrasonic examinations are planned during the current interval for the welds referenced in Section I of the request.

"For the Class 1 Component listed in Section I above, Duke Energy proposes to use the pressure test to compliment the limited examination coverage. The Code requires (reference Table IWB-2500-1, Item Number B15) that a system leakage test be performed after each refueling outage. Additionally a system hydrostatic test (reference Table IWB-2500-1, Item Number B15) is required once during each 10-year inspection interval. These tests require a VT-2 visual examination for evidence of leakage. This testing will provide adequate assurance of pressure boundary integrity."

Evaluation: The Code requires 100% volumetric and surface examination of the subject pressure retaining welds in piping. However, as demonstrated by the reports and sketches submitted by the licensee, complete volumetric examination of the subject welds is limited due

to the coarse-grained material characteristics that cause attenuation of the ultrasonic energy, and single sided access caused by elbow-to-pump and nozzle transition geometry. Therefore, the geometric design configuration and austenitic material characteristics make complete volumetric examinations impractical to perform on the subject welds. In order to meet the Code requirements, the branch connections and elbow to pump welds would have to be modified to facilitate scanning from both sides of the weld. Imposition of these requirements would create a considerable burden on the licensee.

The licensee has completed a significant portion (48-90% composite coverage) of the subject welds. Additionally, the subject welds are part of a larger population of Class 1 pressure retaining welds that were examined during the interval. Therefore, any pattern of degradation would have been detected by the examinations performed and reasonable assurance of the structural integrity of the subject pressure retaining welds has been provided. Based on the impracticality of meeting the Code coverage requirements for the subject welds, and the reasonable assurance provided by the examinations that were completed, it is recommended that relief be granted pursuant to 10 CFR 50.55a(g)(6)(i).

2.5 Request for Relief No. 98-001 (Part E) Examination Category C-A, Pressure Retaining Welds in Pressure Vessels

Code Requirement: Examination Category C-A, Item C1.30, requires 100% volumetric examination of pressure retaining welds in pressure vessels, as defined in Figure IWC-2500-2.

Licensee's Code Relief Request: In accordance with 10 CFR 50.55a(g)(5)(iii), the licensee requested relief from the Code-required volumetric examinations of steam generator tubesheet-to-shell weld number 1SGA-02-03.

Licensee's Basis for Requesting Relief (as stated):

"During the ultrasonic examination of the Tubesheet to Stub Barrel Weld 1SGA-02-03 shown in Attachment 15, limited scanning area was caused by the proximity of inspection ports and branch connection piping. In order to achieve more coverage these obstruction would have to be moved away from the weld. Therefore, the 100% volumetric examination is impractical for this weld. The imposition of this requirement would create a considerable burden on Duke Energy Corporation. During the examination of this weld, techniques were utilized to obtain the maximum possible coverage.

"Although the examination volume requirements as defined in ASME Section XI 1986 Edition, Figure IWC-2500-2 could not be met, the amount of coverage obtained for these examinations provided an acceptable level of quality and integrity.

"The steam generators have subsequently been replaced and there is no safety significance to the past examination coverage. The current steam generators were fully inspected by BWI prior to installation and relief for inspection of currently installed equipment is not requested. "

Licensee's Proposed Alternative Examination (as stated):

"The use of radiography as an alternate volumetric examination for all the above listed components is not practical due to component thickness and geometric configurations. Other restrictions making radiography impractical are the physical barriers prohibiting access for placement of source, film, image quality indicator, etc.

"Since radiography is impractical, Duke Energy Corporation will continue to use ultrasonic examination to obtain maximum coverage to the extent practicable of the Item Numbers referenced in Section I of the Request for Relief. No additional ultrasonic examinations are planned during the current interval for the welds referenced in Section I of the request.

"For the Class 2 Component listed in Section I above, Duke Energy proposes to use the pressure test to compliment the limited examination coverage. The Code requires (reference Table IWC2500-1, Item Number C7) that a system pressure test be performed once each period. Additionally a system hydrostatic test (reference Table IWC-2500-1, Item Number C7) is required once during each 10-year inspection interval. These tests require a VT-2 visual examination for evidence of leakage. This testing will provide adequate assurance of pressure boundary integrity."

Evaluation: The Code requires 100% volumetric examination of the subject tubesheet-to-shell weld. However, as demonstrated by the reports and sketches submitted by the licensee, complete volumetric examination of the subject weld is limited due to the proximity of secondary side inspection ports and branch connection piping making complete volumetric examinations impractical to perform on the subject welds. In order to meet the Code requirements, the inspection ports and branch connection piping would have to be relocated away from the subject weld to facilitate access for ultrasonic search units. Imposition of these requirements would create a considerable burden on the licensee.

The licensee completed a significant portion (approximately 87%) of the subject weld and no significant flaws were noted. Additionally, the steam generators have subsequently been replaced, including removal of the subject welds and new replacement welds installed. The new steam generators were fully inspected by the manufacturer prior to installation and the replacement components are subject to the same Code required examinations in the future. Furthermore, relief for inspection of currently installed equipment has not been requested. Based on the impracticality of meeting the Code coverage requirements for the subject welds, and the reasonable assurance provided by the examinations that were completed, it is recommended that relief be granted pursuant to 10 CFR 50.55a(g)(6)(i).

2.6 Request for Relief No. 98-001 (Part F) Examination Category C-F-1, Pressure Retaining Welds in Austenitic Stainless Steel or High Alloy Piping

Code Requirement: Examination Category C-F-1, Item C5.21 requires 100% surface and volumetric examination of pressure retaining welds in austenitic stainless steel or high alloy piping, as defined in Figure IWC-2500-7.

Licensee's Code Relief Request: In accordance with 10 CFR 50.55a(g)(5)(iii), the licensee requested relief from the Code-required volumetric examinations of pipe to flange weld number 1NI18-1.

Licensee's Basis for Requesting Relief (as stated):

"During the ultrasonic examination of the Pipe to Flange Weld 1NI18-1 shown in Attachment 16, coverage of the required examination volume was limited due to single sided access caused by the pipe to flange geometry preventing scanning from both sides of the weld. During the examination of this weld, techniques were utilized to obtain the maximum possible coverage.

"The stainless steel characteristics of the weld mandate the use of refracted longitudinal waves to examine the weld metal and the far side base material. This type of ultrasonic wave produces mode conversion at the pipe inside surface, thus preventing the use of sound path distances beyond the first "leg". Therefore, coverage of the required examination volume in two-beam path directions is not practical.

"Although the examination volume requirements as defined in ASME Section XI 1986 Edition, Figure IWC-2500-7 could not be met, the amount of coverage obtained for these examinations provided an acceptable level of quality and integrity.

"The Pipe to Flange weld (Weld Number 1NI18-1) is located on the safety injection piping and is isolable from the reactor coolant system by two check valves. This weld was inspected by radiography and dye penetrant during construction and verified to be free from unacceptable fabrication defects. If a leak were to occur at this weld, it would be identified by decreasing cold leg accumulator level which is monitored by the operators or by the reactor coolant leakage calculation which is normally performed daily (and required by Technical Specifications to be performed every 72 hours) would provide an early indication of leakage. The unidentified leakage specification in Technical Specification 3.4.6.2 is 1 gpm. Several other indicators such as containment radiation monitors EMF-38, -39, and -40, the containment floor and equipment sump levels, containment humidity instruments and the ventilation unit condensate drain tank level would provide early indication of weld leakage for prompt Operations and Engineering evaluation.

"The safety injection system Pipe to Flange Weld 1NI18-1 examination coverage is limited due to pipe flange geometry preventing 100% volumetric examination coverage and the 100% examinations are impractical. Replacement or re-design of this piping is not a viable alternative and would create an undue burden on Duke Energy Corporation."

Licensee's Proposed Alternative Examination (as stated):

"The use of radiography as an alternate volumetric examination for all the above listed components is not practical due to component thickness and geometric configurations. Other restrictions making radiography impractical are the physical barriers prohibiting access for placement of source, film, image quality indicator, etc.

"Since radiography is impractical, Duke Energy Corporation will continue to use ultrasonic examination to obtain maximum coverage to the extent practicable of the Item Numbers referenced in Section I of the Request for Relief. No additional ultrasonic examinations are planned during the current interval for the welds referenced in Section I of the request.

"For the Class 2 Component listed in Section I above, Duke Energy proposes to use the pressure test to compliment the limited examination coverage. The Code requires (reference Table IWC2500-1, Item Number C7) that a system pressure test be performed once each period. Additionally a system hydrostatic test (reference Table IWC-2500-1, Item Number C7) is required once during each 10-year inspection interval. These tests require a VT-2 visual examination for evidence of leakage. This testing will provide adequate assurance of pressure boundary integrity."

Evaluation: The Code requires 100% volumetric and surface examination of the subject weld. However, as demonstrated by the reports and sketches submitted by the licensee, complete volumetric examination of the subject welds is impractical due to the coarse-grained material characteristics that cause attenuation of the ultrasonic energy, and single sided access due to the pipe-to-flange geometry. To meet the Code requirements for volumetric examination, the subject weld and/or adjoining components would require significant re-design or replacement. Therefore, the Code coverage volumetric requirements are impractical for the subject weld. Imposition of this requirement would create a considerable burden on the licensee.

The licensee has completed a significant portion (approximately 87%) of the Code-required volumetric and 100% of the required surface examinations of the subject weld. Therefore, based upon the Code-required surface and volumetric examinations completed, it is reasonable to conclude that patterns of degradation, if present, would have been detected. Consequently, reasonable assurance of the structural integrity of the subject weld has been provided. Therefore, it is recommended that relief be granted pursuant to 10 CFR 50.55a(g)(6)(i).

3. CONCLUSION

The INEEL staff evaluated the licensee's submittal and concluded that certain inservice examinations cannot be performed to the extent required by the Code at the William B. McGuire Nuclear Station, Unit 1. For requests for relief 98-001, (Parts B through F) outlined above, it is concluded that the Code requirements are impractical for the subject welds. Therefore, it is recommended that relief be granted pursuant to 10 CFR 50.55a(g)(6)(i). For request for relief 98-001, Part A, the licensee has not demonstrated the impracticality of meeting the Code requirements, therefore, it is recommended that relief not be granted per 10 CFR 50.55a(g)(6)(i).

cc:
Ms. Lisa F. Vaughn
Legal Department (PBO5E)
Duke Energy Corporation
422 South Church Street
Charlotte, North Carolina 28201-1006

County Manager of
Mecklenburg County
720 East Fourth Street
Charlotte, North Carolina 28202

Michael T. Cash
Regulatory Compliance Manager
Duke Energy Corporation
McGuire Nuclear Site
12700 Hagers Ferry Road
Huntersville, North Carolina 28078

Anne Cottingham, Esquire
Winston and Strawn
1400 L Street, NW.
Washington, DC 20005

Senior Resident Inspector
c/o U.S. Nuclear Regulatory Commission
12700 Hagers Ferry Road
Huntersville, North Carolina 28078

Dr. John M. Barry
Mecklenberg County
Department of Environmental
Protection
700 N. Tryon Street
Charlotte, North Carolina 28202

Mr. Steven P. Shaver
Senior Sales Engineer
Westinshouse Electric Company
5929 Carnegie Blvd.
Suite 500
Charlotte, North Carolina 28209

Ms. Karen E. Long
Assistant Attorney General
North Carolina Department of
Justice
P. O. Box 629
Raleigh, North Carolina 27602

L. A. Keller
Manager - Nuclear Regulatory
Licensing
Duke Energy Corporation
526 South Church Street
Charlotte, North Carolina 28201-1006

Elaine Wathen, Lead REP Planner
Division of Emergency Management
116 West Jones Street
Raleigh, North Carolina 27603-1335

Mr. Richard M. Fry, Director
Division of Radiation Protection
North Carolina Department of
Environment, Health and Natural
Resources
3825 Barrett Drive
Raleigh, North Carolina 27609-7721

Mr. T. Richard Puryear
Owners Group (NCEMC)
Duke Energy Corporation
4800 Concord Road
York, South Carolina 29745