

March 21, 2003

Mr. Fred J. Cayia  
Site Vice President  
Point Beach Nuclear Plant  
Nuclear Management Company, LLC  
Two Rivers, WI 54241

SUBJECT: POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2 - RELIEF REQUEST NO. 9  
ASSOCIATED WITH THE 10-YEAR INTERVAL INSERVICE INSPECTION  
PROGRAM (TAC NOS. MB5403 AND MB5404)

Dear Mr. Cayia:

By letter dated March 22, 2002, the Nuclear Management Company, LLC (the licensee), submitted Relief Request No. 9 which proposed an alternative to the requirements of the American Society of Mechanical Engineers *Boiler and Pressure Vessel Code* (ASME Code), Section XI. Specifically, the licensee requested the use of Code Case N-600, "Transfer of Welder, Welding Operator, Brazer, and Brazing Operator Qualifications Between Owners," for the Point Beach Nuclear Plant, Units 1 and 2.

The Nuclear Regulatory Commission (NRC) staff has reviewed Relief Request No. 9. The NRC staff's safety evaluation is enclosed. The NRC staff concludes that compliance with the ASME Code requirements would result in hardship without a compensating increase in the level of quality and safety. The NRC staff also concludes that the proposed alternative provides reasonable assurance of quality and safety. Pursuant to 10 CFR Part 50, Section 50.55a(a)(3)(ii), the proposed alternative described in Relief Request No. 9 is authorized for the fourth 10-year interval of the inservice inspection program until such time as the code case is published in a future version of Regulatory Guide (RG) 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1." At that time, if the licensee intends to continue implementing Code Case N-600, it must follow all provisions of the code case with the limitations or conditions specified in RG 1.147, if any.

Sincerely,

*/RA/*

L. Raghavan, Chief, Section 1  
Project Directorate III  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-266 and 50-301

Enclosure: Safety Evaluation

cc w/encl: See next page

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PDIII-1 Reading        RBouling                TChan  
LRaghavan              KRIemer, RGN-III      GGeorgiev  
DSpaulding              GHill(4)

\*\*See previous concurrence

\*Provided SE input by memo

ADAMS Accession No. ML030620328

OFFICE	PDIII-1/PM	PDIII-1/LA	EMCB/SC*	OGC**	PDIII-1/SC
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DATE	3/21/2003	3/21/2003	01/29/03	03/10/03	3/21/2003

Point Beach Nuclear Plant, Units 1 and 2

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October 2002

# SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

## RELIEF REQUEST NO. 9 FOR THE FOURTH 10-YEAR INTERVAL

### NUCLEAR MANAGEMENT COMPANY, LLC

### POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

### DOCKET NOS. 50-266 AND 50-301

## 1.0 INTRODUCTION

By letter dated March 22, 2002, the Nuclear Management Company, LLC (the licensee), submitted Relief Request No. 9 pursuant to 10 CFR 50.55a(a)(3)(ii) for Point Beach Nuclear Plant (PBNP), Units 1 and 2. The licensee proposed an alternative to the requirements for qualification of welders, welding operators, brazers, and brazing operators stated in American Society Mechanical Engineers *Boiler and Pressure Vessel Code* (ASME Code), Section XI, Article IWA-4000.

## 2.0 REGULATORY EVALUATION

Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.55a(g), specifies that inservice inspection (ISI) of nuclear power plant components shall be performed in accordance with the requirements of the ASME Code, Section XI, except where specific written relief has been granted by the Nuclear Regulatory Commission (NRC) pursuant to 10 CFR 50.55a(g)(6)(i). It is stated in 10 CFR 50.55a(a)(3) 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.

## 3.0 TECHNICAL EVALUATION

### 3.1 Background

The requirements of ASME Code, Section XI, Article IWA-4440(c), stipulate that the owner/repair organization shall qualify all welders, welding operators, brazers, and brazing operators in accordance with the Codes specified in the Repair/Replacement Plan. The licensee proposes to use the alternative welding qualification requirements provided in Code Case N-600, "Transfer of Welder, Welding Operator, Brazer, and Brazing Operator Qualifications Between Owners." Code Case N-600, which was approved in January 2001, was subsequently published by ASME and is now available for public use. Code Case N-600 permits welders, welding operators, brazers, and brazing operators qualified by one owner to be used by another owner provided that the owner which qualified the welding and/or brazing personnel certifies in writing that Welder/Welding Operator/Brazer/Brazing Operator

Performance Qualifications (WPQ/BPQ) were conducted in accordance with a Quality Assurance Program that satisfies the requirements of ASME Code, Section XI, Article IWA-1400. The owner accepting the WPQ/BPQ must accept responsibility for the completed WPQ/BPQ. In addition, the owner accepting the WPQ/BPQ shall require each welder, welding operator, brazer, or brazing operator to demonstrate proficiency by completing a renewal qualification test in accordance with ASME Code, Section IX, Article QW 322.2(a) or QB-322(b).

The code of record for the fourth interval for the PBNP Units 1 and 2 is the ASME Code, Section XI, 1998 edition with addenda through 2000. The information provided by the licensee in support of Relief Request No. 9 has been evaluated and the basis for disposition is discussed below.

3.2 Component Identification (as stated by the licensee)

Code Classes:	1, 2, and 3
References:	ASME, Section XI, IWA-4000, 1998 Edition, 2000 Addenda
Examination Category:	All
Item Number:	All
Description:	Alternative to Welding and Brazing Performance Qualification Requirements
Component Numbers:	All

3.3 Code Requirements (as stated by the licensee)

ASME, Section XI, IWA-4440(c) and (d), 1998 Edition, 2000 Addenda requires that the Owner/Repair Organization shall qualify all welders, welding operators, brazers, and brazing operators in accordance with the Codes specified in the Repair/Replacement Plan.

3.4 Licensee's Basis for Relief (as stated)

Relief is requested from the requirements for qualification of welders, welding operators, brazers, and brazing operators stated in ASME, Section XI, IWA-4000. This request also includes relief for all Welder Performance Qualification Records and Brazing Qualification Records (WPQ / BPQ) supporting alternative repair procedures in accordance with ASME, Section XI, IWA-4600 and balance of plant welding.

Point Beach Nuclear Plant (PBNP) requests to utilize an alternative to qualification of welders, welding operators, brazers, and brazing operators. This alternative extends the logic already found in Code Case N-573 (sharing Procedure Qualification Records between Owners), which has been incorporated into the 1998 Edition of Section XI with Addenda through 2000, which will be used at PBNP.

Maintaining the original requirement presents an undue hardship, as considerable utility specific resources would be duplicated when qualified welders, welding operators, brazers, and brazing operators from other

NRC licensed facilities have already been demonstrated to provide an acceptable level of quality and safety. The requested alternative will not reduce safety or quality.

### 3.5 Licensee's Proposed Alternative Examinations (as stated)

PBNP will use as an alternative to welding and brazing performance qualification requirements of IWA-4000, a welder, welding operator, brazer, or brazing operator qualified by other Owners. The following requirements shall be met:

1. The Owner that performed the qualification test shall certify that testing was performed in accordance with Section IX by signing the record of Welder/Welding Operator, Brazer, Brazing Operator Performance Qualification (WPQ/BPQ).
2. The Owner that performed the qualification test shall certify, in writing, that the qualification was conducted in accordance with a Quality Assurance Program that satisfies the requirements of ASME, Section XI, IWA-1400.
3. PBNP, when accepting the WPQ/BPQ, shall obtain any necessary supporting information to satisfy the requirements of ASME, Section IX, QW301.4 (e.g., [W]elding Procedure Specification, type of tests) from the Owner supplying the WPQ/BPQ.
4. PBNP, when accepting the WPQ/BPQ, shall require each welder, welding operator, brazer, or brazing operator to demonstrate proficiency by completing a renewal qualification test in accordance with Section IX, QW 322.2(a) or QB-322(b).
  - When WPQ transfer involves prior groove tests, the renewal test shall use a groove configuration.
  - When WPQ transfer involves fillet tests, the renewal test may be either fillet or groove configuration.
5. PBNP, when accepting the WPQ/BPQ, shall accept responsibility for the Performance Qualification Test, and shall document acceptance on the WPQ/BPQ for the renewal test. This WPQ/BPQ shall reference the WPQ/BPQ supplied by the Owner that performed the qualification.
6. PBNP shall accept responsibility for compliance with Section IX, QW-322.
7. PBNP may accept and us[e] a WPQ/BPQ only when it is received directly from the Owner that performed the qualification.
8. PBNP will comply with the PBNP Quality Assurance requirements of IWA-4142(a).

This alternative follows the requirements of ASME Code Case N-600, which was approved January 2001, but has not been published. [Code Case N-600 was published after the licensee submitted the request for relief.]

### 3.6 NRC Staff Evaluation

The licensee proposed an alternative to the requirements of ASME Code, Section XI, Article IWA-4440(c), which requires that the owner/repair organization shall qualify all welders, welding operators, brazers, and brazing operators in accordance with the Codes specified in the Repair/Replacement Plan. The licensee proposes to use the alternative welding qualification requirements provided in Code Case N-600

Code Case N-600 permits welder, welding operators, brazers, and brazing operators qualified by one owner to be used by another owner provided that the owner which qualified the welding and/or brazing personnel certifies in writing that WPQs/BPQs were conducted in accordance with a Quality Assurance Program that satisfies the requirements of ASME Code, Section XI, Article IWA-1400. The owner accepting the WPQ/BPQ must accept responsibility for the completed WPQ/BPQ. In addition, the owner accepting the WPQ/BPQ shall require each welder, welding operator, brazer, or brazing operator to demonstrate proficiency by completing a renewal qualification test in accordance with ASME Code, Section IX, QW 322.2(a) or QB-322(b). Code Case N-600 allows the use of WPQ/BPQ qualified by one owner to be used by another owner. The licensee's proposed alternative satisfy specific requirements listed in Code Case N-600.

The NRC staff finds that the alternative requirements of Code Case N-600 provide an acceptable level of control for the owner accepting a WPQ/BPQ; such that the licensee would be required to (1) review and accept the responsibility of the WPQ/BPQ and (2) demonstrate technical competence in application of the received WPQ/BPQ by completing a renewal performance qualification test in accordance with Article QW-322.2(a) of ASME Code, Section IX. These actions will ensure the acceptability of the WPQ/BPQ prior to it being used at PBNP, Units 1 and 2. The NRC staff also finds that qualification of a WPQ/BPQ for the purpose of welding or brazing may be performed by any owner provided the applicable requirements for WPQ/BPQ qualification are maintained. The owners may use WPQs/BPQs qualified by other owners provided the conditions/requirements listed in Code Case N-600 are met. Further, the NRC staff finds that requiring the licensee to qualify welding and brazing personnel in accordance with Article IWA-4000 of ASME Code, Section XI, would result in hardship upon the licensee without a compensating increase in the level of quality and safety because utility efforts would be duplicated when qualified welders, welding operators, brazers, and brazing operators from other NRC-licensed facilities have already been demonstrated to provide an acceptable level of quality and safety. Therefore, the proposed alternative will provide an acceptable level of quality and safety.

### 4.0 CONCLUSION

The NRC staff has determined that the proposed alternative welding and brazing personnel qualification requirement of Code Case N-600 would provide a comparable level of quality and safety as that of the ASME Code, Section XI, Article IWA-4440(c). The NRC staff concludes that compliance with the ASME Code requirements would result in hardship without a compensating increase in the level of quality and safety. The NRC staff also concludes that the proposed alternative provides reasonable assurance of quality and safety. Pursuant to 10 CFR Part 50, Section 50.55a(a)(3)(ii), the proposed alternative described in Relief Request No. 9 is authorized for the fourth 10-year interval of the inservice inspection program until such time as the code case is published in a future version of Regulatory Guide (RG)

1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1." At that time, if the licensee intends to continue implementing Code Case N-600, it must follow all provisions of the code case with the limitations or conditions specified in RG 1.147, if any.

Principle Contributors: G. Georgiev  
D. Spaulding

Date: March 21, 2003