

May 15, 2004

NRC 2004-0053  
10 CFR 50.55a(a)(3)(i)  
10 CFR 50.55a(g)(5)(iii)

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555

Point Beach Nuclear Plant, Units 1 and 2  
Dockets 50-266  
License Nos. DPR-24  
Supplement 1 to Reactor Vessel Closure Head Penetration Repair and Flaw  
Characterization Relief Requests MR 02-018-1, Revision 1 and MR 02-018-2,  
Revision 1

Reference: (1) Letter from NMC to NRC dated May 13, 2004 (NRC 2004-0051)  
(2) NRC Safety Evaluation dated September 10, 2003  
(3) NRC Safety Evaluation dated September 24, 2003

In reference 1, Nuclear Management Company (NMC) LLC, licensee for Point Beach Nuclear Plant (PBNP), requested revision to the relief, granted in references 2 and 3, pertaining to reactor vessel closure head (RVCH) penetration repair and flaw characterization.

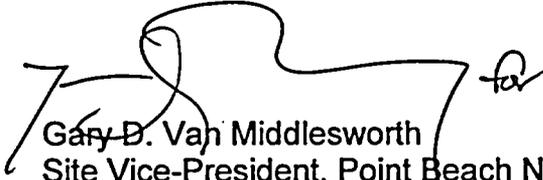
During a conference call between NRC staff and NMC personnel on May 15, 2004, the staff requested additional information in support of their review of Reference 1, regarding crack growth rates in addition to those documented in EPRI MRP-55, "Materials Reliability Program (MRP) Crack Growth Rates for Evaluating Primary Water Stress Corrosion Cracking (PWSCC) of Thick-Wall Alloy 600 Material." Enclosure 1 to this letter provides the additional information requested by the staff.

This submittal provides revised primary water stress corrosion cracking (PWSCC) crack growth correlations and fatigue crack growth calculations, for the repair and flaw characterization, where portions of the new pressure boundary weld overlap onto portions of the remnant J-groove weld. These correlations and calculations address hypothetical growth in Alloy 82 material as a conservative representation for Alloy 52.

The conclusion of the revised calculation shows that, even with the very conservative assumption of using Alloy 82 crack growth rates for Alloy 52 weld material, a hypothetical remnant weld crack will not grow through the repair weld ligament for 1.4 effective full power years (EFPY) of operation. Therefore, the hypothetical flaw could not progress sufficiently to go through the pressure boundary during the next Unit 1 operating cycle.

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This submittal contains no new or revised regulatory commitments.

A handwritten signature in black ink, appearing to read "Gary D. Van Middlesworth", is written over the typed name and title.

Gary D. Van Middlesworth  
Site Vice-President, Point Beach Nuclear Plant  
Nuclear Management Company, LLC

Enclosure: 1 - Structural Integrity Associates Calculation PBCH-09Q-302,  
Revision 2, Dated May 15, 2004

cc: Project Manager, Point Beach Nuclear Plant, NRR, USNRC  
Regional Administrator, Region III, USNRC  
NRC Resident Inspector - Point Beach Nuclear Plant  
PSCW