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SUBJECT: Submits response to request for addl info re GL 92-01, "Reactor Vessel Structural Integrity."

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NRC-98-66

Wisconsin Public Service Corporation
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June 30, 1998

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Ladies/Gentlemen:

Docket 50-305
Operating License DPR-43
Kewaunee Nuclear Power Plant
Request For Additional Information Regarding Reactor Vessel Structural Integrity GL92-01 (TAC NO. MA0549)

References:
1) Generic Letter 92-01, Revision 1, Supplement 1, dated May 19, 1995
2) Letter from CR Steinhardt (WPSC) to Document Control Desk (US NRC), dated April 28, 1995
3) Letter from CR Steinhardt (WPSC) to Document Control Desk (US NRC), dated August 21, 1995
4) Letter from RJ Laufer (US NRC) to ML Marchi (WPSC), dated December 19, 1995
5) Letter from CR Steinhardt (WPSC) to Document Control Desk (US NRC), dated January 25, 1996
6) Letter from WO Long (US NRC) to ML Marchi (WPSC), dated March 31, 1998

Generic Letter (GL) 92-01, Revision 1, Supplement 1, "Reactor Vessel Structural Integrity," was issued on May 19, 1995. This GL requested licensees to perform a review of their reactor pressure vessel (RPV) structural integrity assessments in order to identify, collect, and report any new data pertinent to the analysis of the structural integrity of their RPV's and assess the impact of those data on their RPV integrity analyses relative to the requirements of Section 50.60 of Title 10 of the Code of Federal Regulations (10 CFR 50.60), 10 CFR 50.61, Appendices G and H to 10 CFR Part 50 (which encompass pressurized thermal shock (PTS) and upper shelf (USE) evaluations), and any potential impact on low-temperature overpressure (LTOP) limits or pressure-temperature (PT) limits. References 3 and 5 provided the NRC with WPSC's assessment of the structural integrity of the RPV at the Kewaunee Nuclear Power Plant (KNPP).

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A028

By letter dated March 31, 1998 the Nuclear Regulatory Commission (NRC) requested Wisconsin Public Service Corporation (WPSC) provide additional information, within 90 days of receipt of the letter, relative to a Combustion Engineering Owners Group (CEOG) report on RPV weld chemistry

data for RPV's fabricated by CE. The following table provides the CEOG best estimates copper and nickel values for weld heat IP3571; i.e., the controlling material in the KNPP RPV.

Heat IP3571 Best Estimate Copper Nickel Values (Taken From CE NPSD-1039 Final Report)		
Calc Method	%Cu	%Ni
Simple Ave	0.270	0.757
Ave of Ave	0.294	0.755
Coil Weighted	0.283	NA

CE NPSD-1039 states that the coil weighted method provides the best estimate of copper and that the average of average method provides the best estimate of nickel for heat IP3571. Thus, according to the Combustion Engineering Owners Group the best estimate value of copper and nickel for weld heat IP3571 is 0.283 and 0.755, respectively. In references 3 and 5, WPSC performed its review of the KNPP RPV structural integrity assessments using higher values than those reported by the Combustion Engineering Owners Group. The following table summarizes the values of copper and nickel that were provided in response to previous requests for additional information related to GL 92-01, revision 1, supplement 1.

Heat IP3571 Copper and Nickel Values (Taken From References 3 and 5)				
Calc Method	Reference 3		Reference 5	
	% Cu	% Ni	% Cu	% Ni
Simple Ave	0.26	0.75	0.26	0.75
Case 2	0.33	0.77	---	---
Ave of Ave	---	---	0.305	0.766
Coil Weighted	---	---	0.297	NA

In reference 3, WPSC performed a calculation using an arbitrary bounding value of copper (0.33) and nickel (0.77). The calculation is identified as Case 2 and indicates that ART at end of life is 289°F which is still below the 300°F screening criteria for circumferential welds. The conclusions made in references 3 and 5 therefore continue to adequately represent the KNPP RPV since the review was performed using higher values of copper and nickel than those listed in CE NPSD-1039.

WPSC is in the process of preparing a proposal to amend the current heatup and cooldown curves located in the KNPP technical specifications. This submittal will also update the KNPP RPV PTS evaluation and provide the information requested in Tables 1, 2, and 3 of reference 6. Due to the duplicative nature of this information, WPSC has elected at this time to provide this limited response to the request for additional information, since all of the requested information will be made available to the NRC in our submittal later this summer.

Should you have questions regarding this response, please contact a member of my staff.

Sincerely,

Clark R. Steinhardt
Senior Vice President - Nuclear Power

CAT

cc: US NRC Region III
US NRC Senior Resident Inspector

Subscribed and Sworn to
Before Me This 30th Day
of June 1998

Jeanne M. Ferris
Notary Public, State of Wisconsin

My Commission Expires:
June 13, 1999