



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

July 12, 1999

Mr. G. R. Horn
Sr. Vice President of Energy Supply
Nebraska Public Power District
1414 15th Street
Columbus, NE 68601

SUBJECT: COOPER NUCLEAR STATION - RESPONSE TO THE REQUEST FOR
ADDITIONAL INFORMATION ON GENERIC LETTER 92-01, REVISION 1,
SUPPLEMENT 1, "REACTOR VESSEL STRUCTURAL INTEGRITY"
(TAC NO. MA1185)

Dear Mr. Horn:

On May 19, 1995, the U.S. Nuclear Regulatory Commission (NRC) issued Generic Letter 92-01, Revision 1, Supplement 1 (GL 92-01, Rev. 1, Supp. 1), "Reactor Vessel Structural Integrity," to holders of nuclear operating licenses. In issuing the generic letter, the staff required addressees of the generic letter to:

- (1) identify, collect, and report any new data pertinent to the analysis of structural integrity of the reactor pressure vessels (RPVs) at their nuclear plants, and
- (2) assess the impact of that data on their RPV integrity analyses relative to the requirements of Sections 50.60 and 50.61 to Part 50 of Title 10 of the *Code of Federal Regulations* (10 CFR 50.60 and 10 CFR 50.61), and to the requirements of Appendices G and H to 10 CFR Part 50.

On August 17, 1995, you submitted your initial response to GL 92-01, Rev. 1, Supp. 1, and provided the requested information relative to the structural integrity assessment for the Cooper Nuclear Station (CNS). The staff evaluated your response to GL 92-01, Rev. 1, Supp. 1, and provided its conclusion relative to the response on July 30, 1996. However, since the time of the staff's closure letter, the Combustion Engineering (CE) Owners Group and the Babcock and Wilcox (B&W) Owners Group have each submitted additional data regarding the alloying chemistries of beltline welds in CE- and B&W-fabricated vessels. The additional alloying data were submitted in Topical Reports CE NPSD-1039, Revision 2, CE NPSD-1119, Revision 1, for CE-fabricated RPV welds, and BAW-2325, Revision 1, for B&W-fabricated RPV welds. In addition, Chicago Bridge and Iron boiling-water reactor data were submitted in Topical Report BWRVIP-46. As a result of the efforts by CE and B&W, the staff determined that additional information was necessary relative to the structural integrity assessments for your plant.

On April 24, 1998, the staff issued a request for additional information (RAI) in regard to the alloying chemistries of beltline welds, your assessment of surveillance data for your facility, and their impact on pressure-temperature (P-T) limits for CNS. In general, with respect to the contents of the RAI, the staff requested that you reassess the alloying chemistries for the beltline welds and RPV surveillance welds relative to the chemistries provided in Topical Reports CE NPSD-1039, Revision 2, and CE NPSD-1119, Revision 1, and provide the impact of any changes to the best-estimate chemistries for your beltline RPV welds on the structural

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integrity assessments for your facility relative to the requirements of 10 CFR 50.60, 10 CFR 50.61, and Appendices G and H to 10 CFR Part 50, as applicable to the licensing basis for your plant.

You provided your response to the staff's RAI for CNS on July 20, 1998. As a result of the staff's review of your responses to GL 92-01, Revision 1, GL 92-01, Rev. 1, Supp. 1, and the Supp. 1 RAI, the staff has revised the information in the Reactor Vessel Integrity Database (RVID) and is releasing it as RVID, Version 2. It should be noted that there are some variations in the data inputted by the staff, and the corresponding values reported by you in your response to the GL 92-01, Rev. 1, Supp. 1 RAI. The deviations between the data are explained in the reference sections for each unit, or the individual component screen notes (i.e., each forging, plate, and weld has a specific area for notes which is a new feature of the database). They are summarized as follows:

The staff determined that the fluence values should be those from the 1993 surveillance report which contains both vessel inner-diameter (ID) and 1/4-thickness (1/4T) fluence values. Your end-of-license (EOL) ID fluence values reported in your response dated July 20, 1998, to the staff RAI is actually the EOL 1/4T fluence values of the 1993 surveillance report. This decision has no impact to the current P/T limits because the fluence used in the current P/T limits evaluation, which was approved in 1992, is more conservative.

The best-estimate chemistry data for the weld fabricated with weld wire heat numbers 27204/12008 was determined by the staff to be that from the CE NPSD-1039 report. Your reported plant-specific data was lower than the best-estimate value from the CE report. While this updated information resulted in a net increase in the RT_{NDT} values for this weld, it remains a non-limiting material.

The new database diskettes are posted on the World Wide Web at a location that is linked to the NRC home page (<http://www.nrc.gov/NRR/RVID/index.html>). We recommend that you review this information. If the staff does not receive comments by September 1, 1999, we will assume that the data entered into the RVID are acceptable for your plant. No additional information is necessary with regard to the structural integrity assessments. Future submittals on P-T limits, or upper-shelf energy should reference the most current information.

This closes the staff's efforts related to TAC number MA1185. The staff appreciates your efforts in regard to this matter.

Sincerely,

ORIGINAL SIGNED BY

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Office of Nuclear Reactor Regulation

Docket No. 50-298

cc: See next page

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* No major changes to input

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Cooper Nuclear Station

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June 22, 1999