

January 29, 2003

MEMORANDUM TO: File

FROM: John G. Lamb, Project Manager, Section 1 */RA/*
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

SUBJECT: PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNIT 2 - CODE
INTERPRETATION (TAC NO. MB6836)

During the course of a Region III inspection at Prairie Island Nuclear Generating Plant (PINGP), the Nuclear Regulatory Commission (NRC) staff determined that the licensee found weld indications during PINGP Unit 2 2002 Refueling Outage (RFO) on 22 steam generator (SG) head-to-tubesheet welds, and the scope was not expanded to 21 SG head-to-tubesheet welds. The licensee performed an operability recommendation for 21 SG. During a conference call with the licensee to discuss the PINGP Unit 1 SG tube inspections, which was held on November 25, 2002, the NRC staff requested that the licensee submit an Operability Recommendation for 21 SGs. Gene Eckholdt of the Nuclear Management Company, LLC (the licensee), e-mailed me Operability Recommendation OPR000360 on December 2, 2002. Region III staff held a conference call with the licensee on December 2, 2002, to discuss Operability Recommendation OPR000360. Based on questions from the Region III staff, the licensee revised its Operability Recommendation OPR000360. Shannon Hanson of the licensee's staff e-mailed me "Operability Recommendation OPR000360 Revision 1," on December 4, 2002. The licensee determined that 21 SG is operable, but nonconforming in accordance with Generic Letter 91-18.

A conference call was held between the NRC staff and the licensee on December 4, 2002, to discuss "Operability Recommendation OPR000360 Revision 1." Attached is the list of attendees on the conference call. The NRC staff asked the licensee if it used Performance Demonstration Initiative (PDI) in its examination of the 22 SG head-to-tubesheet welds. The licensee stated it did not use PDI in its examination of the 22 SG head-to-tubesheet welds because it was not required by the American Society of Mechanical Engineers Code (Code). The NRC asked questions regarding flaw characterization. The licensee stated that the 14 flaws discovered during the 2002 RFO were casting flaws in the base metal. The licensee also stated that all the ultrasonic thickness indications were acceptable by Code or fracture analysis in accordance with WCAP-14166. The licensee stated it would send in the analysis dispositioning the indications by the end of January 2003. The NRC staff asked if the licensee used the critical flaw methodology or a stress intensity factor; the licensee stated it would verify which methodology was used. In addition, the licensee stated it is seeking a Code interpretation, because it believes that when performing successive examinations, the expansion criteria does not apply. The NRC staff stated it would look into this matter further internally.

In the view of the Piping Integrity & Nondestructive Examination (NDE) Section of the Materials & Chemical Engineering Branch (EMCB) of the Division of Engineering of the Office of Nuclear Reactor Regulation, the sample expansion and additional inspection requirements of IWB-2430(a) and (b) apply, even when conducting successive examinations per IWB-2420(b). The purpose of the successive exams is to ensure that the assumptions made in the analysis, which allowed leaving a flaw in service, remain valid. However, if new flaws are found while conducting the successive exams, then those flaws must be appropriately dispositioned, because they may or may not be related to the original flaw left in service, and the provisions of IWB-2430(a) and (b) followed.

However, Code Case (CC) N-586 provides alternate requirements to IWB-2430(a), which based on the licensee's determination that these "new" flaws were fabrication-related indications, may not have required additional exams. Although the NRC staff has not approved the use of CC-N-586 via Regulatory Guide 1.147, had the licensee proposed to use the CC, the NRC staff would likely have approved its use, with conditions.

EMCB notes that the draft task interface agreement does not indicate what the inspection results were for SG 12 and SG 21 for the 1998 and 2000 RFOs, respectively. However, if those exam results are "clean," then from a practical viewpoint, if CC-N586 was invoked, it is possible for the licensee to have determined that sample expansion or additional exams were not required.

Because the licensee called these flaws "new flaws," a technical noncompliance with implementation of the Code requirement occurred, but the safety significance is low. Had the licensee associated these "new" flaws as "old" flaws, but in a different (but justifiably similar) location based on new NDE methods or characterization uncertainties, or implemented CC-N-586, it is possible noncompliance could have been avoided. Regardless of how the Code dispositions the inquiry, NRC is not bound by the interpretation.

Region III submitted a request for technical assistance using Task Interface Agreement (TIA) 2003-01 for the application of ASME Code Section XI, IWB-2430 requirements associated with scope of volumetric weld expansion at PINGP. Region III submitted TIA 2003-01 by letter dated January 17, 2003. The NRC staff will respond to the code interpretation via TIA 2003-01.

Docket No. 50-306

Attachment: List of Attendees for December 4, 2002,
Conference Call

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PUBLIC	BBateman	PDIII-1 Reading	PPatniak
LRaghavan	TChan	JLamb	KRiemer, RIII
RBouling	MHolmberg, RIII	OGC	ACRS

ADAMS Accession No. ML030220403

*Previously Concurred

OFFICE	PDIII-1/PM	PDIII-1/LA	EMCB/SC*	PDIII-1/SC
NAME	JLamb	RBouling	TChan	LRaghavan
DATE	01/28/03	01/28/03	01/03/03	01/29/03

LIST OF ATTENDEES FOR CONFERENCE CALL HELD DECEMBER 4, 2002

<u>NAME</u>	<u>ORGANIZATION</u>
John G. Lamb	NRC
L. Raghavan	NRC
Pat Patriak	NRC
Raul Hernandez	NRC
Mel Holmberg	NRC
Randy Womack	NMC
Gene Eckholdt	NMC
Shannon Hanson	NMC
Jerry Wren	NMC
Jack Leveille	NMC

ATTACHMENT