



**INDIANA
MICHIGAN
POWER***

A unit of American Electric Power

Indiana Michigan Power
Cook Nuclear Plant
One Cook Place
Bridgman, MI 49106
AEP.com

September 22, 2005

AEP:NRC:5055-10
10 CFR 50.55a

Docket Nos: 50-315
50-316

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop O-P1-17
Washington, DC 20555-0001

Donald C. Cook Nuclear Plant Units 1 and 2
PROPOSED ALTERNATIVE TO THE
AMERICAN SOCIETY OF MECHANICAL ENGINEERS CODE, SECTION XI
WELD INSPECTION REQUIREMENTS

Pursuant to 10 CFR 50.55a(a)(3)(i), Indiana Michigan Power Company (I&M), the licensee for Donald C. Cook Nuclear Plant (CNP) Units 1 and 2, is proposing an alternative to the weld inspection requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code).

In the August 16, 1995, Federal Register (60 FR 42622), the Nuclear Regulatory Commission (NRC) published a policy statement that indicated that the use of probabilistic risk assessment (PRA) methods in nuclear regulatory activities should be increased to the extent supported by the state of the art in PRA methods and data and in a manner that complements the NRC's deterministic approach. In support of the NRC policy for incorporating risk insights into the regulatory framework, Regulatory Guide 1.178, "An Approach For Plant-Specific Risk-Informed Decisionmaking Inservice Inspection of Piping," was published in September 1998. This Regulatory Guide provides guidance on approaches considered acceptable to the NRC in meeting the existing Section XI requirements for the scope and frequency of inservice inspection (ISI) programs. The Regulatory Guide indicates that until risk-informed ISI (RI-ISI) is approved for generic use, the NRC will consider approval, in accordance with 10 CFR 50.55a(a)(3)(i), of licensee requests to use risk-informed information to support changes in nuclear power plant ISI programs.

Subsequently, in Information Notice 98-44, "Ten-Year Inservice Inspection (ISI) Program Update For Licensees That Intend To Implement Risk-Informed ISI Of Piping," the NRC indicated that it will consider authorizing a delay of up to two years in the implementation of a 10-year ISI program, for piping only, to allow licensees to develop and obtain approval for a RI-ISI program using NRC-approved topical reports.

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I&M is developing risk-informed methods to monitor and update the existing ISI piping program for both CNP Unit 1 and Unit 2. I&M expects to submit this program for NRC approval in the fourth quarter of 2005. Consistent with this effort, I&M requests relief from the ASME Code, Section XI minimum percentage requirements for examination of certain weld categories delineated in Tables IWB-2412-1 and IWC-2412-1 of Inspection Program B for the second inspection period as a large number of welds require examination during the second period. Minimizing the performance of these examinations provides an opportunity to avoid personnel radiation exposure associated with Class 1 piping inspections that may not be required following the approval of a RI-ISI program. The relief request and the basis for concluding that it provides an acceptable level of quality and safety are provided in the Attachment 1 to this letter.

I&M requests approval of this relief request by December 31, 2005, to facilitate planning for the ISI examinations to be conducted during the Unit 2, Cycle 16 refueling outage scheduled to begin in March 2006.

Attachment 2 to this letter provides the commitment made in this submittal. Should you have any questions, please contact Mr. John A. Zwolinski, Director of Safety Assurance at (269) 466-2428.

Sincerely,



Daniel P. Fadel
Engineering Vice President

Attachment: 1. 10 CFR 50.55a Relief Request –ISIR-19, Proposed Alternative in Accordance with
10 CFR 50.55a(a)(3)(i)

2. Regulatory Commitment

- c: R. Aben – Department of Labor and Economic Growth
- J. L. Caldwell – NRC Region III
- K. D. Curry – AEP Ft. Wayne, w/o attachments
- J. T. King – MPSC, w/o attachments
- MDEQ – WHMD/RPMWS, w/o attachments
- NRC Resident Inspector
- D. W. Spaulding – NRC Washington DC

Attachment 1 to AEP:NRC:5055-10

10 CFR 50.55a Relief Request –ISIR-19
Proposed Alternative in Accordance with 10 CFR 50.55a(a)(3)(i)

Components for Which Relief is Requested

This request for relief is applicable to Class 1 and 2 piping welds, American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, Category B-F, B-J, C-F-1, and C-F-2 welds at the Donald C. Cook Nuclear Plant (CNP), Units 1 and 2.

ASME Section XI Code Requirement:

For the third 10-year inservice inspection (ISI) program for CNP Units 1 and 2, the code of record is the ASME Code, Section XI, 1989 Edition with no addenda. CNP is performing inservice examinations in accordance with the schedule of Inspection Program B of Paragraph IWA-2432. For Inspection Program B, Table IWB-2412-1 and Table IWC-2412-1 require that a minimum of 50 percent of the required examinations in each weld category be completed during the inspection interval's second inspection period.

Requested Relief

In accordance with 10 CFR 50.55a(a)(3)(i), relief is requested from the Table IWB-2412-1 and Table IWC-2412-1 requirements for meeting the minimum examination percentages associated with Code Category B-F, B-J, C-F-1, and C-F-2 welds during the second inspection period for the third 10-year interval.

Basis for Requesting Relief

In the August 16, 1995, Federal Register (60 FR 42622), the Nuclear Regulatory Commission (NRC) published a policy statement that indicated that the use of probabilistic risk assessment (PRA) methods in nuclear regulatory activities should be increased to the extent supported by the state of the art in PRA methods and data and in a manner that complements the NRC's deterministic approach. In support of the NRC policy for incorporating risk insights into the regulatory framework, Regulatory Guide 1.178, "An Approach For Plant-Specific Risk-Informed Decisionmaking Inservice Inspection of Piping," was published in September 1998. This Regulatory Guide provides guidance on approaches considered acceptable to the NRC in meeting the existing Section XI requirements for the scope and frequency of ISI programs. The Regulatory Guide indicates that until risk-informed ISI (RI-ISI) is approved for generic use, the NRC will consider approval, in accordance with 10 CFR 50.55a(a)(3)(i), of licensee requests to use risk-informed information to support changes in nuclear power plant ISI programs.

Subsequently, in Information Notice 98-44, "Ten-Year Inservice Inspection (ISI) Program Update For Licensees That Intend To Implement Risk-Informed ISI Of Piping," the NRC indicated that it will consider authorizing a delay of up to two years in the implementation of a 10-year ISI program,

for piping only, to allow licensees to develop and obtain approval for a RI-ISI program using NRC-approved topical reports.

CNP is currently in the second inspection period of the third 10-year inspection interval. The second inspection period ends January 31, 2007, for Unit 1 and September 30, 2006, for Unit 2 (The third inspection interval for both units ends February 28, 2010). Only one refueling outage remains for each unit to complete the second period examination requirements. To meet the second period examination requirements of Tables IWB-2412-1 and IWC-2412-1, a large number of welds must be examined (Summaries of the weld examinations requirements, including the percentage of examinations that have been performed during the third ISI interval are provided in Tables 1 and 2). Approval of this relief request will eliminate the requirement to perform piping weld examinations during the remaining outage of the second inspection period of the third inspection interval, that may no longer be required under a RI-ISI program, with the resultant savings in radiation exposure and plant resources.

Proposed Alternative

CNP is currently developing a RI-ISI program using the guidance of ASME, Section XI. This RI-ISI program is expected to result in a substantial reduction in the required number of piping weld examinations. The RI-ISI program will be developed and submitted during the fourth quarter of 2005. Upon approval of the RI-ISI program submittal, the examinations required by the RI-ISI program will be scheduled to occur over the remainder of the outages in the third 10-year inspection interval such that sixty-six percent of the High Safety Significant RI-ISI population requiring examination will be examined by the end of the third 10-year inspection interval.

Commitments made under NRC Bulletin 2004-01, "Inspection of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Piping Connections at Pressurized-Water Reactors" are not impacted by this request.

Precedents

Similar requests have been approved for the Nine Mile Point Nuclear Station, Unit 1, Reference 1, and the Brunswick Steam Electric Plant, Unit 2, Reference 2.

References

1. Letter from Marsha Gamberoni, NRC, to John H. Mueller, Niagara Mohawk Power Corporation, "Nine Mile Point Nuclear Station Unit No. 1 – Alternative to American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) Minimum Weld Inspection Percentage (TAC No. MB0175)," Accession Number ML010180160, dated February 9, 2001.

2. Letter from Richard P. Correia, NRC, to J. S. Keenan, Brunswick Steam Electric Plant, "Brunswick Steam Electric Plant, Unit No. 2 – Safety Evaluation for Proposed Alternative in Accordance with 10 CFR 50.55a(a)(3)(i) for Examination Percentage Requirements (TAC No. MA9533)," Accession Number ML003772489, dated November 29, 2000.

Table 1

Unit 1 Weld Examination Summary

CATEGORY	ITEM	NUMBER REQUIRED TO BE EXAMINED DURING THE THIRD INSPECTION INTERVAL	EXAMINATION PERCENTAGE COMPLETED
B-F	B5.10	8	0
B-F	B5.40	6	33
B-F	B5.70	8	25
B-J	B9.11	98	31
B-J	B9.12	4	50
B-J	B9.21	59	39
B-J	B9.31	3	33
B-J	B9.32	7	57
B-J	B9.40	128	32
C-F-1	C5.11	30	53
C-F-1	C5.21H	30	23
C-F-1	C5.30H	5	20
C-F-2	C5.51	33	27

Table 2

Unit 2 Weld Examination Summary

CATEGORY	ITEM	NUMBER REQUIRED TO BE EXAMINED DURING THE THIRD INSPECTION INTERVAL	EXAMINATION PERCENTAGE COMPLETED
B-F	B5.10	8	0
B-F	B5.40	6	34
B-F	B5.70	8	25
B-J	B9.11	100	33
B-J	B9.12	8	50
B-J	B9.21	68	32
B-J	B9.31	3	33
B-J	B9.32	7	57
B-J	B9.40	122	42
C-F-1	C5.11	25	80
C-F-1	C5.21	1	0
C-F-1	C5.21H	31	35
C-F-1	C5.30H	5	40
C-F-2	C5.51	31	35

Attachment 2 to AEP:NRC:5055-10

Regulatory Commitment

The following table identifies those actions committed to by Indiana Michigan Power Company (I&M) in this document. Any other actions discussed in this submittal represent intended or planned actions by I&M. They are described to the Nuclear Regulatory Commission (NRC) for the NRC's information and are not regulatory commitments.

Commitment	Date
I&M will develop and submit a risk-informed inservice inspection program for NRC approval.	December 31, 2005