



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

MAY 18 1988

Docket No.: 50-370

MEMORANDUM FOR: Darl Hood, Project Manager
Project Directorate II-3
Division of Reactor Projects I/II

FROM: C. Y. Cheng, Chief
Materials Engineering Branch
Division of Engineering and Systems Technology

SUBJECT: RELIEF FROM ASME CODE SECTION XI REQUIREMENT FOR THE
NUCLEAR SERVICE WATER SYSTEM, MCGUIRE NUCLEAR STATION,
UNIT 2, RELIEF REQUEST NO. 88-02 (TAC-68060)

By letter dated April 27, 1988, the Duke Power Company (the Licensee) requested relief from the ASME Boiler and Pressure Vessel Code Section XI requirement for hydrostatic testing of repair welds in the Nuclear Service Water System at the McGuire Nuclear Station, Unit 2. The Licensee, pursuant to 10 CFR 50.55a(g)(5) (iii), determined that the test requirement of Section XI, 1980 Edition, Winter 1980 Addenda, Articles IWA-4400 and IWA-5000, was impractical to perform because the repaired piping containing the subject welds could not be isolated for pressurization. The pump capacity to pressurize the piping is insufficient to offset the leakage through the butterfly valves used to isolate the welded section. The Nuclear Service Water System contains butterfly type valves ranging in size from 18-inch to 36-inch and operates at design pressure and temperature of 135 psig and 95°F, respectively.

The integrity of the weld repair is assured by performing either a dye penetrant (PT) or magnetic particle (MT) inspection of both the root and final weld passes. An inservice leak test at system pressure and temperature will be performed to detect weld defects and through wall leakage when the system is placed in service.

The Materials Engineering Branch, Division of Engineering and Systems Technology has evaluated Relief Request No. 88-02. We conclude that the ASME Code Section XI test requirement is impractical to perform at the McGuire Nuclear Station, Unit 2, and that the alternative tests provide an acceptable level of structural integrity for the Nuclear Service Water System. Compliance with the specific ASME Code Section XI test requirement would result in hardship without a compensating increase in the level of quality and safety. Relief from the ASME Boiler and Pressure Vessel Code Section XI test requirement is granted as requested by the Licensee.

Contact: Felix Litton
X20926

8805260395 880518
PDR ADOCK 05000370
PDR

MAY 18 1988

- 2 -

This memorandum completes our assignment on TAC-68060. Our SALP report is attached.

Original Signed by
C. Y. Cheng

C. Y. Cheng, Chief
Materials Engineering Branch
Division of Engineering and Systems
Technology

cc: L. Shao
S. Varga
J. Richardson
J. Norberg
D. Hood
W. Hazelton
M. Hum
B. Brown, INEL
G. Johnson
J. Blake, R-II
F. Litton

DISTRIBUTION:

Central File

EMTB RF
EMTB PF

DEST: EMTB
FHL Hazelton: tys
05/18/88

DEST: EMTB
WSHazelton
05/18/88

DEST: EMTB
CYCheng
05/18/88

SALP REPORT

PLANT: McGuire Nuclear Station Unit 2
DOCKET NO.: 50-370
TAC # 68060

LICENSEE: Duke Power Company
REVIEWER: Felix Litton
LICENSING ACTIVITY: ISI Relief
Request No. 88-02

<u>EVALUATION CRITERIA</u>	<u>RATING</u>	<u>REMARKS</u>
1. Management Involvement and Control in Assuring Quality	2	
2. Approach to Resolution of Technical Issues from a safety standpoint	2	The Licensee's submittals were technically sound.
3. Responsiveness to NRC Initiatives	2	The Licensee responded to NRC initiatives.
4. Enforcement History	NA	
5. Reporting and Analysis of Reportable Events	NA	
6. Staffing	NA	