



Consumers  
Power  
Company

James W Cook  
Vice President - Projects, Engineering  
and Construction

General Offices: 1945 West Parnall Road, Jackson, MI 49201 • (517) 788-0453

June 30, 1984

83-15 #3

Mr J G Keppler, Regional Administrator  
US Nuclear Regulatory Commission  
Region III  
799 Roosevelt Road  
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER PROJECT  
DOCKET NOS 50-329 AND 50-330  
NON-SEISMICALLY SUPPORTED COMPONENT COOLING WATER PIPING SYSTEM  
FILE: 0.4.9.87 SERIAL: 30338

References: J W Cook letters to J G Keppler, same subject:

Serial 26665, dated January 16, 1984  
Serial 30019, dated April 20, 1984

This letter is the final report of a 10CFR50.55(e) condition involving the attachment of non-Q/non-seismic piping to the component cooling water system.

The attachment to this letter describes the concern and summarizes the investigation and corrective action taking place.

*James W. Cook*

JWC/AHB/cd

Attachment: 1) MCAR-79, Final Report, dated June 20, 1984.

CC: Document Control Desk, NRC  
Washington, DC

Midland NRC Resident Office  
Midland Nuclear Plant

DSHood, USNRC Office of NRR

INPO Records Center

8407230194 840630  
PDR ADOCK 05000329  
S PDR

OC0684-0037A-MP01

JUL 9 1984

IE27  
1/1

OM/OL SERVICE LIST

Mr Frank J Kelley  
Attorney General of the  
State of Michigan  
Ms Carole Steinberg  
Assistant Attorney General  
Environmental Protection Division  
720 Law Building  
Lansing, MI 48913

Mr Myron M Cherry, Esq  
Suite 3700  
Three First National Plaza  
Chicago, IL 60602

Mr Wendell H Marshall  
RFD 10  
Midland, MI 48640

Mr Charles Bechhoefer, Esq  
Atomic Safety & Licensing  
Board Panel  
U S Nuclear Regulatory Commission  
East-West Towers, Room E-413  
Bethesda, MD 20014

Dr Frederick P Cowan  
6152 N Verde Trail  
Apt B-125  
Boca Raton, FL 33433

Mr Fred C Williams  
Isham, Lincoln & Beale  
1120 Connecticut Ave, NW, Suite 840  
Washington, DC 20036

Mr James E Brunner, Esq  
Consumers Power Company  
212 West Michigan Avenue  
Jackson, MI 49201

Atomic Safety & Licensing  
Appeal Board  
U S Nuclear Regulatory Commission  
Washington, DC 20555

Mr C R Stephens (3)  
Chief, Docketing & Services  
U S Nuclear Regulatory Commission  
Office of the Secretary  
Washington, DC 20555

Ms Mary Sinclair  
5711 Summerset Street  
Midland, MI 48640

Mr William D Paton, Esq  
Counsel for the NRC Staff  
U S Nuclear Regulatory Commission  
Washington, DC 20555

Atomic Safety & Licensing  
Board Panel  
U S Nuclear Regulatory Commission  
Washington, DC 20555

Ms Barbara Stamaris  
5795 North River Road  
Rt 3  
Freeland, MI 48623

Dr Jerry Harbour  
Atomic Safety & Licensing  
Board Panel  
U S Nuclear Regulatory Commission  
East-West Towers, Room E-454  
Bethesda, MD 20014

Mr M I Miller, Esq  
Isham, Lincoln & Beale  
Three First National Plaza  
52nd Floor  
Chicago, IL 60602

Mr D F Judd  
Babcock & Wilcox  
PO Box 1260  
Lynchburg, VA 24505

Mr Steve Gadler, Esq  
2120 Carter Avenue  
St Paul, MN 55108

Mr P Robert Brown  
Clark, Klein & Beaumont  
1600 First Federal Bldg  
Woodward Ave  
Detroit, MI 48226

Mr John DeMeester, Esq  
Dow Chemical Building  
Michigan Division  
Midland MI 48640

Ms Lynne Bernabei  
Government Accountability Project  
1901 Q Street, NW  
Washington, DC 20009

3/14/84

Bechtel Associates Professional Corporation

153997

154085

SUBJECT: MCAR 79

FINAL REPORT

DATE: June 20, 1984

PROJECT: Consumers Power Company  
Midland Plant Units 1 and 2  
Bechtel Job 7220

Introduction

This report provides the status of the course of corrective action required by Management Corrective Action Report (MCAR) 79.

Description of Concerns

A condition exists where non-Q-listed/nonseismically supported component cooling water (CCW) piping is connected to Q-listed letdown coolers in the reactor building and Q-listed seal return coolers in the auxiliary building.

The following lines and associated equipment are involved in this concern:

<u>Unit</u>	<u>Line</u>	<u>Line Class</u>	<u>Equipment</u>	<u>Equipment Class</u>	<u>Reference Document (7220-)</u>
1	6"-1HBD-448 through 451	Non-Q	1E-57A and B (letdown coolers)	Q	H-616, Sh 5
2	6"-2HBD-448 through 451	Non-Q	2E-57A and B (letdown coolers)	Q	H-617, Sh 1
1	4"-1JBD-56 through 57	Non-Q	1E-59A and B (seal return coolers)	Q	H-616, Sh 13
2	4"-2JBD-161 through 162	Non-Q	2E-59A and B (seal return coolers)	Q	H-617, Sh 13

# Bechtel Associates Professional Corporation

MCAR 79  
Final Report

154085 153997

Page 2

## Historical Background

During a design review and site walkdown, it was discovered that the non-Q CCW piping connected to the reactor building letdown coolers was not seismically supported and could impose unacceptable loading on the coolers. Subsequent investigation resulted in the identification of a similar condition associated with the return coolers. Affected hardware is listed in Description of Concerns in this report.

## Analysis of Safety Implications

1. Using worst-case loading conditions, the associated cooler supports could fail causing subsequent failure of the letdown line, a component of the reactor coolant boundary.
2. Vendor reviews concluded that the affected hardware could fail under this worst-case loading.
3. Based on the assumption in Item 2 above, this condition is considered reportable under the Code of Federal Regulations, 10 CFR 50.55(e).

## Root Cause

The root cause was failure to verify compliance with equipment vendor nozzle load limitations at the interface between the non-Q-listed, noncritical systems during the coordinations process by the plant design stress group.

## Corrective Action

1. Nonconformance Report C-02164 was issued March 29, 1984, to document the nonconforming hardware and track corrective action.
2. An investigation has been completed to determine whether a similar condition exists where non-Q-listed systems have not been analyzed for the effects on the safety-related equipment. The review found that one additional item was unacceptable: damper (OMO-6549) - non-Q-ductwork connected to a Q-listed damper. All other commodities were found to be acceptable. Nonconformance Report H-00497-ZZ was issued June 15, 1984, to document the nonconforming hardware and to track corrective action.

Bechtel Associates Professional Corporation

MCAR 79  
Final Report

15408553997

Page 3

3. A training session was held to reinstruct plant design stress group personnel on the proper method of reviewing the total loads acting on vendor equipment when sent to project plant design for review. No other training would be necessary because of the results of reviews of similar concerns.

Reportability

This concern was reported to the NRC by Consumers Power Company as a potentially reportable condition under the rules of 10 CFR 50.55(e) on December 16, 1983.

*2/16/83*  
*THP OKA*  
*DWJ*  
Submitted by: *for* *E.B. Poser*  
E.B. Poser  
Project Engineering  
Manager

Approved by: *7/1/83*  
*Sys.*  
*CYCH/TK* *B.R. Klein*  
(for) B.R. Klein  
Plant Design Chief  
Engineer

Approved by: *E.H. Smith*  
E.H. Smith  
Engineering Manager

Concurrence by: *M.A. Dietrich*  
M.A. Dietrich  
Project Quality  
Assurance Engineer

BS/MLH/bjm\*(PD)