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Power  
Company

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January 13, 1984

83-14 #1

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  
DIESEL GENERATOR PIPING ANALYSIS  
FILE: 0.4.9.86 SERIAL: 26664

On December 14, 1983, Consumers Power Company notified your staff of a potential 10CFR50.55(e) condition involving differential settlement between the diesel generator structure and the diesel generator pedestal.

This letter is an interim 10CFR50.55(e) report. The attachments to this letter describe the concern and summarize the investigation and corrective action taking place.

Another report, either interim or final, will be sent on or before April 20, 1984.

JWC/AHB/lr

Attachments: (1) MCAR-1, Report No 78, dated December 19, 1983

(2) MCAR-78, Interim Report 1, dated January 6, 1984

CC: Document Control Desk, NRC  
Washington, DC

RJCook, NRC Resident Inspector  
Midland Nuclear Plant

DHood, USNRC Office of NRR

INPO Records Center

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OC0184-0030A-MP01

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QUALITY ASSURANCE PROGRAM  
**MANAGEMENT CORRECTIVE ACTION REPORT**

JOB NO. 7220

137573

MCAR-1

REPORT NO. 78

DATE 12/19/83

I\* DESCRIPTION (Including references):

Midland FSAR addresses differential settlement between the diesel generator structure and diesel generator pedestal as follows:

(continued)

\* RECOMMENDED ACTION (Optional)

1. Perform an evaluation to determine what impact, if any, the existing design would have on the safety of operations at Midland if left uncorrected.

(continued)

REFERRED TO ☒ ENGINEERING ☐ CONSTRUCTION ☐ QA MANAGEMENT ☐

☐ PROCUREMENT

\*\*This deficiency was reported to NRC by the client as a potential reportable condition on 12/14/83.

ISSUED BY

*Allen E Crosby* 12/19/83  
for Project QA Engineer Date

II REPORTABLE DEFICIENCY

☐ NO

☒ YES

NOTIFIED CLIENT

*Alan Boos* / KSN 12/20/83  
Project Manager Date

III CAUSE

CORRECTIVE ACTION TAKEN

AUTHORIZED BY \_\_\_\_\_

Date

STANDARD DISTRIBUTION

ADDITIONAL DISTRIBUTION - AS APPROPRIATE

DIVISION QA MANAGER  
MANAGER OF QA - BPC  
GPD - QA MANAGER  
LAPD QA MANAGER  
SFPD QA MANAGER  
PROJECT MANAGER  
CLIENT

ENGINEERING MANAGER  
PROJECT ENGINEER  
QE SUPERVISOR  
  
CONSTRUCTION MANAGER  
PROJ SUPT/PROJ CONSTR MANAGER  
CHIEF CONSTR QC ENGINEER

DIVISION PROCURENT MGR  
PROJ PROCUREMENT MGR  
PROCUREMENT SUPPLIER QUALITY MGR AND  
DIV SUPPLIER QUALITY MGR

FORMAL REPORT TO CLIENT  
(If Section II Applies)

Date

CORRECTIVE ACTION IMPLEMENTED

VERIFIED BY \_\_\_\_\_

Project QA Engineer

Date

\* Describe in space provided and attach reference document.

137573

Description (continued):

1. Settlement due to diesel engine vibration (Ref: FSAR Section 2.5.4.10.3.2.1.5).
2. Settlement due to earthquake ground shaking (Ref: FSAR Section 2.5.4.10.3.2.1.6).
3. Settlement over 40 year life of plant (Ref: FSAR Section 2.5.4.10.3.2.1.2).

Additionally, Bechtel's commitment in response to 10CFR 50.54(f) questions regarding plant fill requires piping which is connected between the diesel generator building and the pedestals to be designed to accommodate the expected future settlement, (Ref: Commitment 18-3, Master List of Plant Fill Commitments).

Contrary to the above, the requirements for differential settlement between the diesel generator structure and diesel generator pedestals were not accounted for in the design of the piping, equipment, and pipe supports for this system, thereby rendering the ability of the system to perform its intended safety function indeterminate at this time.

Recommended Action (continued):

2. If, as a result of item 1) above, nonconforming hardware is found to exist, initiate proper controls in accordance with project procedures for nonconforming conditions.
3. Evaluate the process by which FSAR requirements, including those based on the Plant Fill Commitment List, are incorporated into final design documents. If a deficiency is found to exist in this process, perform a review to identify any other conditions where requirements or commitments may not have been incorporated into the final design.
4. If, as a result of item 3) above, deficiencies are found to exist, perform an evaluation to determine the impact on safety of operations, initiate controls for any hardware nonconformances found in accordance with project procedures for nonconforming items.
5. Determine root cause of deficiency and provide corrective action(s) to prevent recurrence.
6. Issue initial report, either interim or final, by 12/30/83.

SUBJECT: MCAR 78 139341  
INTERIM REPORT 1  
DATE: January 6, 1984  
PROJECT: Midland Plant Units 1 and 2  
Consumers Power Company  
Bechtel Job 7220

### Introduction

This report provides the status and the course of corrective action required by Management Corrective Action Report (MCAR) 78.

### Description of Deficiency

Requirements for differential settlement between the diesel generator building structure and diesel generator pedestals were not accounted for in the design of the piping, equipment, conduits, and pipe supports.

### Historical Background

This deficiency was discovered during a system review of the diesel generator for conformance to design requirements conducted on November 21, 1983. After this review, the NRC was notified of the deficiency by an unknown party.

### Analysis of Safety Implications

A safety evaluation is presently in process. The results will be discussed in detail in the next report.

### Probable Cause

The probable cause will be determined in Item 2 of the corrective action process and identified in the next report.

### Corrective Action

1. Review the process by which design requirements are incorporated into the actual existing design. If deficiencies in the process are discovered, determine the scope of the deficiencies and take appropriate actions.



139311

## Bechtel Associates Professional Corporation

MCAR 78

139341

Interim Report 1

Page 2

2. Bring system into compliance with design requirements. Determine the root cause of the deficiency and provide corrective action(s) to prevent recurrence.

Reportability

This deficiency was reported to the NRC by Consumers Power Company as a potential reportable condition on December 14, 1983.

MLH  
SJKMLH  
JGK

Submitted by:

mlh for RFT.

mlh

D. Poser for E.B. Poser

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Project Engineering  
Manager

JH  
B 1/9/84  
for MTF

Approved by:

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Engineering Manager

Concurrence by:  
for

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M.A. Dietrich  
Project Quality  
Assurance Engineer

RFT/MLH/jsh\*(PD)