Consumers Power Company

James W Cook
Vice President, Midland Project

General Offices: 1945 West Parnall Road, Jackson, Michigan 49201 • (517) 788-0640

July 17, 1980

Mr J G Keppler, Regional Director
Office of Inspection & Enforcement
USNuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND NUCLEAR PLANT
UNIT NO 1, DOCKET NO 50-329
UNIT NO 2, DOCKET NO 50-330
POWER SUPPLIES TO EMERGENCY CORE COOLING ACTUATION SYSTEM (ECCAS)
FILE: 0.4.9.40 UFI: 02210 (s) SERIAL: 9311

This letter confirms the 50.55(e) item concerning the Emergency Core Cooling Actuation System (ECCAS) Digital Subsystem 2 Logic Circuitry Drawings, reported by telephone call from M J Schaeffer to R Knop, USNRC Region III, Glen Ellyn, IL, and R Cook, USNRC Midland Resident Inspector on June 18, 1980.

The attachments to this letter describe the conditions and actions taken concerning this item.

This letter is the Final Report on this matter in that the Bechtel design drawings have been corrected. B&W will have their drawings corrected by September 30, 1980. The ECCAS has not been installed. The only inplace hardware affected consists of three cables, two of which have been terminated. The revised Bechtel Design Drawings deleted these circuits. The Plant will be in conformance by September 30, 1980.

James W. Cook

WRB/blt

Attachment: 1) Management Corrective Action Report (MCAR-1), Report No 39, dated June 18, 1980

2) MCAR-39, Final Report, Power Supplies to Emergency Core Cooling Actuation System (ECCAS), dated July 7, 1980

CC: Director of Office of Inspection and Enforcement
Attn: Mr Victor Stello, USNRC (15)

Director of Office of Management
Information and Program Control, USNRC (1)

QUALITY ASSURANCE PROGRAM
MANAGEMENT CORRECTIVE ACTION REPORT
MCAR-1

Attachment 1

REPORT NO. 30

JOB NO. 7220009017 Q NO. _____ DATE 6/18/80

I *DESCRIPTION (Including references):

On June 17, 1980, Project Engineering identified a deficiency on the electrical drawings for the powe- supplies to the emergency core cooling actuation system (ECCAS) digital subsystems B&W Drawing 02-5264ND-03 (VP 7220-M1.32-6-5) correctly shows vital bus A as the power supply to digital subsystem 1, but incorrectly shows vital bus C as the power supply for digital subsystem 2. Power for vital busses A and C is derived from the same load group and the same battery. Thus, a loss of off-site power from the common load group coincident with a battery failure would result in a loss of power to both ECCAS digital subsystems, which is a violation of the single failure criteria of RG 1.53

*RECOMMENDED ACTION (Optional)

1. Correct electrical drawings

2. Determine impact on other systems listed in B&W Balance of Plant Criteria 36-1004513-00, Section 3.3.3

3. Prepare a written report by 7/2/80, in accordance with NQAM, Sect. V, No. 10, Para. 4.1.2

REFERRED TO ☒ ENGINEERING ☐ CONSTRUCTION ☐ QA MANAGEMENT ☐ _____

☐ PROCUREMENT

ISSUED BY R L Pickard for 6-18-80
Project QA Engineer Date

II REPORTABLE DEFICIENCY

☐ NO ☒ YES

NOTIFIED CLIENT 6/17/80
Date

L Hentis for J.A. Rutgers 6/19/80
Project Manager Date

III CAUSE

CORRECTIVE ACTION TAKEN

AUTHORIZED BY _____
Date

STANDARD DISTRIBUTION
DIVISION QA MANAGER
MANAGER OF QA - TPO
GPD - QA MANAGER
LAPD QA MANAGER
AAO QA MANAGER
PROJECT MANAGER
CLIENT
AAO PROJECT OPERATIONS MANAGER
AAO PROCUREMENT MANAGER
AAO MGR OF ENGINEERING
AAO MGR OF CONSTRUCTION

ADDITIONAL DISTRIBUTION - AS APPROPRIATE
ENGINEERING MANAGER
PROJECT ENGINEER
AAO PROCUREMENT SUPPLIER QUALITY MGR
CONSTRUCTION MANAGER
PROJ SUPT/PROJ CONSTR MANAGER
CHIEF CONSTR QC ENGINEER
PF QCE
DIVISION PROCUREMENT MGR
PROJ PROCUREMENT MGR
DIV SUPPLIER QUALITY MGR

FORMAL REPORT TO CLIENT _____ Date
(If Section II Applies)

CORRECTIVE ACTION IMPLEMENTED

VERIFIED BY _____
Project QA Engineer Date

*Describe in space provided and attach reference document.

AAO-965

009348

Subject: MCAR 30 (Issued 6/13/80)
Power Supplies to Emergency Core Cooling Actuation System (ECCAS)
Final Report

Date: July 7, 1980

Project: Consumers Power Company
Midland Plant Units 1 & 2
Bechtel Job 7220

Introduction:

This report is submitted to provide information on the final Bechtel action pursuant to MCAR 30 (ECCAS Power Supplies).

Description of Discrepancy:

During the course of review of B&W drawing 02-5264 MD-03 (V.P. 7220-M1.32-6-5) by Bechtel, it was noted that the power supply to the ECCAS digital subsystem 1 is shown from vital bus A and the supply to ECCAS digital subsystem 2 is shown from vital bus C. The drawing also shows a -15 volt control signal to ECCAS digital subsystem 2 from ECCAS analog subsystem 3. Subsequent review of Bechtel schematic 7220-E-374(Q) revealed the same situation. In accordance with the requirements of sect. 3.3.3 of B&W balance of plant criteria for plant electric system (B&W document 36-1004513-00, V.P. 7220-M1.J-1-1) and FSAR figure 7.2-1 (ECCAS block diagram), the ECCAS digital subsystem 1 should be powered from vital bus A and ECCAS digital subsystem 2 from vital bus B. The -15 volt control signal to ECCAS digital subsystem 2 should be from ECCAS analog subsystem 2.

Thus, based on the B&W drawing and the Bechtel schematic, a postulated event assuming a loss of power from the common load group coincident with a failure of the associated battery, would result in a loss of power to both ECCAS digital subsystems, since both buses A and C would be lost simultaneously (see attached figure).

Cause:

The apparent cause of this discrepancy was due to a misinterpretation of the Midland plant 120 Vac preferred (vital) power system, specifically the electrical load grouping. The Midland 120 Vac preferred power system, which powers the ECCAS, is served by a two battery scheme, where each battery serves two protection channel buses.

The attached Figure shows the two battery scheme with the corresponding bus labeling and ECCAS digital subsystem bus assignments.

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...lication, this discrepancy was considered to be ... with title 10 of the code of Federal Regulations, ... reported on June 1[illegible], 1980.

Submitted by: P.B. Corbett

Approved by: C H Hughes for L H Cobens

Concurrence by: K D Bailey

Concurrence by: R L Ruffell for L A Dreisbach

PBC/pjb

Attachment: Two Battery Scheme Figure

ATTACHMENT TO FINAL REPORT
JOB 7220 - MCAR 39
DATED JULY 2, 1980

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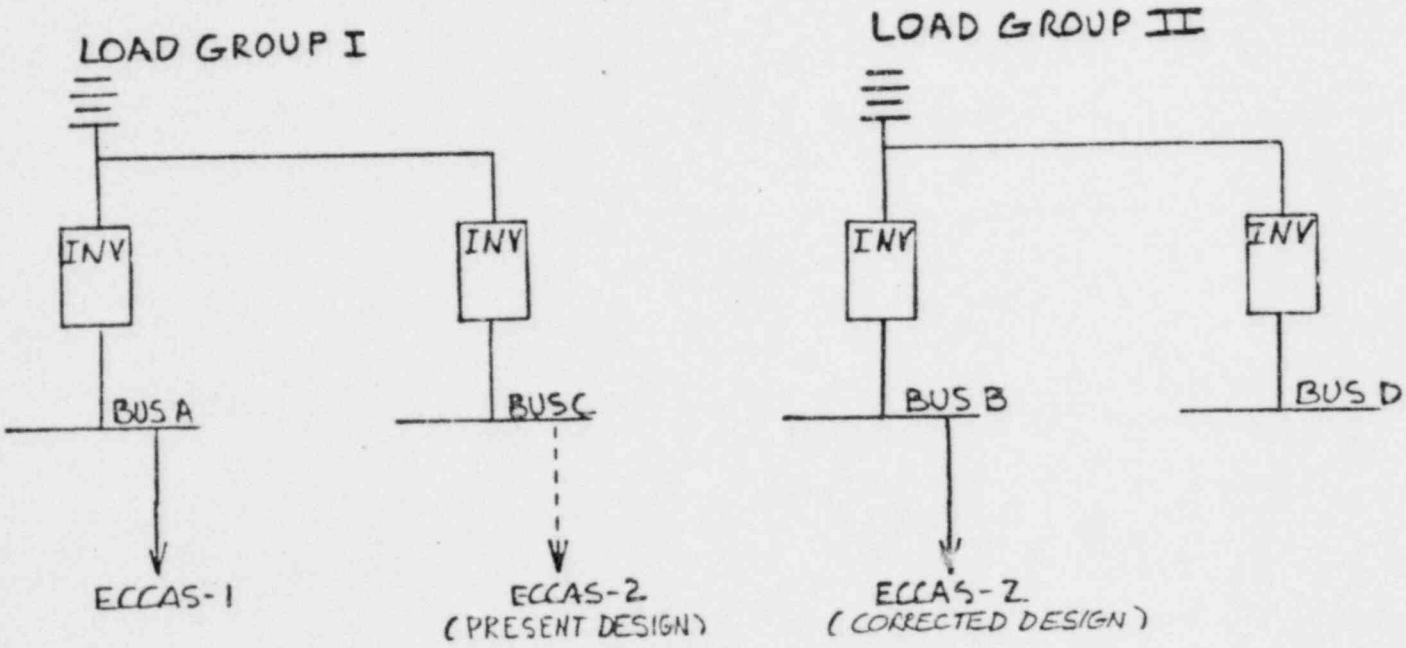

TWO BATTERY SCHEME