



Consumers
Power
Company

James W Cook
Vice President - Projects, Engineering
and Construction

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November 10, 1982

82-10 #1

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

MIDLAND NUCLEAR COGENERATION PLANT -
DOCKET NOS 50-329 AND 50-330
UNDERRATED MOTOR CONTROL CENTER CONTROL CIRCUIT TRANSFORMERS
FILE: 0.4.9.66 SERIAL: 19088

This letter is an interim 50.55(e) report on underrated control circuit transformers supplied by Gould-Brown Boveri for the 460 volt motor control centers. This was reported to F Lomax of the NRC Bethesda office on October 11, 1982. The attachments to this letter provide a description of the deficiency and the corrective action being taken with regard to this matter.

Another report, either interim or final, will be sent on or before January 28, 1983.

WRB/lr

Attachments: (1) Management Corrective Action Report MCAR-1, Report No 61,
dated 10/13/82

(2) MCAR-61, Interim Report 1, dated 10/29/82

CC: Document Control Desk, NRC
Washington, DC

RJCook, NRC Resident Inspector
Midland Nuclear Plant

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PDR ADOCK 05000329
S PDR

OC1182-0008A-MP01

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CC: CBechhoefer, ASLB Panel
RSDecker, ASLB Panel
FPCowan, ASLB Panel
JHarbour, ASLB Panel
AS&L Appeal Panel
MMCherry, Esq
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WDPaton, Esq, USNRC
FJKelley, Esq, Attorney General
SHFreeman, Esq, Asst Attorney General
WHMarshall
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Great Lakes QA Managers

QUALITY ASSURANCE PROGRAM
MANAGEMENT CORRECTIVE ACTION REPORT
MCAR-1

89173

REPORT NO.: 61

JOB NO.: 7220 Q NO.: DATE: 10/13/82

I DESCRIPTION* (Including References):

Specification 7220-E-7 Appendix A Section 2.3 requires all control power trans-
formers (CPT) to be one size larger than standard with a minimum size of 100 VA.
ITE-Gould drawing 7220-E-7-11 also indicates that these transformers are 100 VA.
Contrary to the above, during field modifications of the 460 V class IE MCC's
supplied by ITE-Gould it was discovered that 70 size 1 starters had 50 VA
transformers. This deficiency was identified on NCR 4509.

RECOMMENDED ACTION* (Optional):

1. Replace the 50 VA CPTs with 100 VA as required by specification E-7 (Construction)
2. Inspect all MCC's supplied by ITE-Gould to determine that supplied CPT's for all starters are in accordance with specification E-7 (Construction)
3. Procurement to work with Supplier Quality and ITE-Gould (vendor) to determine the root cause of this problem and provide corrective action to preclude recurrence. This action should be documented and provided to project (con't)

REFERRED TO: Engineering Construction QA Management
 Procurement

ISSUED BY: [Signature] 10/13/82
Project QA Engineer Date

II REPORTABLE DEFICIENCY:

NO

YES

NOTIFIED CLIENT: 10/8/82

[Signature] 10/13/82
Project Manager Date

III CAUSE:

CORRECTIVE ACTION TAKEN:

AUTHORIZED BY: _____
Date

- | | | |
|--------------------------|--------------------------|---------------------------|
| AAPD DISTRIBUTION | PROJ DISTRIBUTION | OTHER DISTRIBUTION |
| MGR OF CONSTRUCTION | CHIEF CONSTR QC ENGR | MGR OF QA - TPO |
| MGR OF ENGINEERING | CLIENT | GPD - QA MGR |
| MGR OF PROCUREMENT | PFOCE | LAPD - QA MGR |
| MGR OF PROJ OPERATIONS | PROJECT CONSTR MGR | SFPD - QA MGR |
| MGR OF QUALITY ASSURANCE | PROJECT ENGINEER | |
| CONSTRUCTION MGR | PROJECT MGR | |
| ENGINEERING MGR | PROJ PROCUREMENT MGR | |
| SUPPLIER QUALITY MGR | SITE MGR | |
| QE SUPERVISOR | | |

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.

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Recommended Action (con't.)

- engineering for inclusion in the MCAR report.
4. Issue interim report by October 26, 1982. (Project Engineering)

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092289 Management Corrective Action Report (MCAR)

SUBJECT: MCAR 61 (Issued 10/13/82)
Deficiencies Associated with Gould Supplied
480/120V Control Power Transformers

INTERIM REPORT NO. 1

DATE: October 29, 1982

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

INTRODUCTION: This report provide interim status and the course
of Corrective Action Required Pursuant to MCAR 61.

DESCRIPTION OF DEFICIENCY:

Approximately 70 Size 1 starters have been identified as having 50 VA control power transformers (CPT's). Specification 7220-E-7(Q), Appendix A, Section 2.3 requires all CPT's to be one size larger than standard with a minimum size of 100 VA. Gould Drawings (Bechtel Vendor Print 7220-E7-11, 12, 13, 19, 20, 25, 26, 27, 28, 29, and 30) also indicate that these CPT's are 100 VA.

SUMMARY OF INVESTIGATION AND HISTORICAL BACKGROUND:

This deficiency was discovered during field modifications of the Class 1E motor control centers (MCC's) and was documented in Bechtel NCR 4509.

ANALYSIS OF SAFETY IMPLICATIONS:

An investigation was conducted to determine the effect of using 50 VA CPT's in Size 1 starters assuming minimum utilization voltage on the MCC bus. The results indicate that a voltage potentially below the limits for proper operation of the MCC starter coils could result. If this minimum design voltage (414 volts) condition were to occur, Class 1E equipment necessary to safely operate the plant may fail to operate.

PROBABLE CAUSE:

The cause for this deficiency is to be investigated (see Corrective Action Item 3)

CORRECTIVE ACTION:

The recommended corrective actions to resolve this MCAR are as follows:

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1. All 50 VA CPT's are to be replaced with 100 VA CPT's. The vendor has been contacted to arrange for replacement of the 50 VA CPT's.
2. All size 1 starters supplied by Gould under Purchase Order 7220-E-7 and 7220-E-34 are to be inspected to determine if the CPT's supplied are in compliance with Specification 7220-E-7, 7220-E-34 and all applicable vendor drawings (see Attachment 1 for locations of these starters). All Class 1E starters Size 2 and larger supplied by Gould under Purchase Order 7220-E-7 will be inspected to assure that the proper size transformers were supplied (see Attachment 2 for the location of these starters).
3. The vendor has been contacted and requested to determine the root cause of this problem and provide corrective action to prevent recurrence.

REPORTABILITY:

Based on the safety implications this deficiency is considered reportable in accordance with Title 10 of the code of Federal Regulation Part 50.55(e).

Submitted by: Chil K. Jurek
for J.G. Kovach
Electrical Group
Supervisor

Approved by: EM Hughes
E.M. Hughes
Project Engineer

Concurrence by: R.L. Castleberry
for R.L. Castleberry
Electrical Chief

Concurrence by: E.H. Smith
E.H. Smith
Engineering Manager

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

JGK
GJB
JGK/SB/se(E)
10/21/1

- Attachments:
1. Location of All Class 1E Size 1 Starters Supplied by Gould
 2. Location of All Class 1E Size 2 and Larger Starters Supplied by Gould

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Attachment 1
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LOCATION OF ALL CLASS 1E SIZE 1 STARTERS SUPPLIED BY GOULD (CPTs Size 100VA)

MOTOR CONTROL CENTERS:

<u>MCC</u>	<u>CUBICLE LOCATION</u>
1B23	2C, 2D, 2E, 3B, 3D, 4A, 4B, 4D, 4E, 6B, 6C, 6D, 7B, 7C, 7D, 8A, 8B, 8D, 8E, 9A, 9B, 9D, 9E, 10A, 10B, 10C, 10E
1B24	2C, 2D, 2E, 3B, 3D, 4A, 4B, 6B, 6C, 6D, 7B, 7C, 7D, 8A, 8B, 8C, 8D, 8E, 9A, 9B, 9C, 9D, 10A, 10B, 10C, 10D, 10E, 11C, 11D
1B53	1B, 2A, 3B, 3C
1B54	1B, 1D, 1E, 3B
1B55	1D, 1E, 2C, 3A, 3B, 3C, 3D, 4A, 4B, 4C, 4D, 5A, 5B, 5C, 5D, 6A, 6B, 6C, 6D, 7B, 7C, 7D, 8A, 8B, 8C, 10A, 10B, 10C, 10D,
1B56	1D, 1E, 2A, 2B, 2C, 2D, 3A, 3B, 3C, 3D, 4A, 4B, 4C, 4D, 5B, 5C, 5D, 6A, 6C, 6D, 7A, 7B, 7C, 7D, 8A, 8B, 8D, 8E, 9A, 9B, 11B, 11C
1B43	1D, 3C, 3D
1B44	1C, 1D, 1E, 2A, 2B, 3A, 3B, 3C
1B63	2C
1B64	2C
1B89	1E, 2C, 2D, 2E
1B90	1E, 2C, 2D, 2E
2B23	2C, 2D, 2E, 3B, 3D, 4B, 4D, 4E, 4A, 6B, 6C, 6D, 7B, 7C, 7D, 8A, 8B, 8C, 8D, 8E, 9A, 9B, 9D, 9E, 10A, 10B, 10C
2B24	2C, 2D, 2E, 3B, 3D, 4A, 4B, 4E, 6B, 6C, 6D, 7B, 7C, 7D, 8A, 8B, 8C, 8D, 8E, 9A, 9B, 9C, 9D, 10A, 10B, 10C, 10D, 10E, 11B, 11C, 11D
1B53	1B, 1D, 1E, 2C
2B54	1B, 1C, 2A, 2C, 2D, 3B, 3C
2B55	1D, 1E, 2B, 2C, 2D, 3A, 3B, 3C, 3D, 4A, 4B, 4C, 4D, 5A, 5B, 5C, 5D, 6A, 6C, 6D, 7B, 7C, 8A, 8B, 8D, 9D, 10B, 10E

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MCC

CUBICLE LOCATION

2B56	1D, 1E, 2A, 2B, 2C, 2D, 3A, 3B, 3C, 3D, 4A, 4B, 4C, 4D, 5B, 5C, 5D, 6A, 6C, 6D, 7A, 7B, 7C, 7D, 8A, 8D, 8E, 9A, 9C, 10C, 10D, 10E, 11D
2B43	1C, 1D, 1E, 2A, 2B, 3B, 3C
2B44	1C, 1D, 1E, 2A, 2B, 3A, 3B, 3C
OB45	1D, 2B, 2C, 3A, 3B, 3E, 4A, 4B, 4C, 4D, 5B, 5C, 5D, 6A, 6B, 6C, 7C,
OB46	1D, 2B, 2C, 3A, 3B, 3E, 4A, 4B, 4C, 4D, 5B, 5C, 5D, 6A, 6B,
2B63	2C
2B64	2C
OB65	1D
OB66	1D
OB68	1B, 1D, 1E, 2B, 2C
OB69	1B, 1D, 1E, 2B, 2C
2B89	1E, 2C, 2D, 2E
2B90	1E, 2C, 2D, 2E

Note: This listing is based on Drawings 7220-E-17(Q), Rev 18 and 7220-E-18(Q) Rev 17

LOCAL CONTROL STATIONS

1NMO3856
2NMO3956
1NMO3893A1
1NMO3893A2
1NMO3893B1
1NMO3893B2
1NMO3868A
1NMO3868B
2NMO3968A
2NMO3968B
2NMO3993A1
2NMO3993A2
2NMO3993B1
2NMO3993B2

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Attachment 2
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LOCATION OF ALL CLASS 1E STARTERS SIZE 2 AND LARGER SUPPLIED BY GOULD

MOTOR CONTROL CENTERS:

<u>MCC</u>	<u>CUBICLE LOCATION</u>
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Size 2 Starter (100VA)

1B23	2B, 3C, 6A, 7A
1B24	2B, 3C, 6A, 7A
1B55	2A, 9E, 10E
1B56	5A, 10D, 11D
1B63	1C, 2B
1B64	1C, 2B

Size 3 Starters (150VA)

1B53	2B, 3A
1B54	2D, 3D
2B53	2A, 3A
2B54	2E, 3D
OB45	7D

Size 4 Starters (250VA)

1B23	1C, 5B
1B24	1C, 5B,
1B53	2D, 3D
1B54	2A, 3C
1B56	9D
1B43	2D
1B44	2D
2B23	1C, 5B
2B24	1C, 5B
2B53	2D

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Size 4 Starter

2B54	3A
2B56	9D
2B43	2D
OB45	6D
2B44	2D
OB46	6D

Note:

- 1) This listing is based on Drawings 7220-E17(Q), Rev 18 and 7220-E18(Q), Rev 17.
- 2) There are no Class 1E local control stations with Size 2 or larger starters.

JGK/SB/se(E)
10/21/1