

August 18, 1994

ATTN: Virgil Beaston
US Nuclear Regulatory Commission
Mail Stop 0-7E4
Washington, DC

RE: Failure of motor operated potentiometer manufactured by Basler Electric of Highland, Illinois, part number 90-72300-116 model MOC 3502

Mr. Beaston,

Illinois Power identified on May 4, 1994 to MKW Power Systems the MOC 3502 part number 90-72300-116 supplied to them under MKW Power Systems' sales order number 508936 failed to operate properly at the time of installation on IP's safety related Div. III diesel generator. This resulted in IP's issuance of a 10CFR21.21 notification letter to the USNRC on June 6, 1994.

MKW Power Systems conducted an investigation which revealed the following information:

1. The identified unit has a silk screen schematic depicting a resistor between terminals 1 and 4 with terminals 2 and 3 shorted.
2. Silk screen has no polarity marks.
3. Unit is not wired in accordance with the silk screen.
4. Unit has resistance between terminals 2 and 4, and a short between 1 and 3 terminals.

Our investigation has resulted in two corrective action reports, one issued internally to our Qualification Department, and one issued externally to Basler Electric describing the incorrect schematic and internal wiring.

The internal CAR (CAR 94-09) has resulted in revisions to the qualification testing of these units to detect this type of defect. The old and new revisions are attachments to this letter for your review.

The external CAR (CAR 94-08) issued to Basler Electric is under investigation and should be resolved by Aug. 30, 1994. MKW will perform a site visit at Basler Electric to verify adequacy of their corrective actions.

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As part of the NUPIC Audit team visiting MKW Power Systems during the week of Aug. 8, 1994, Illinois Power has reviewed our internal actions and is holding RCA 94-00-02 open pending verification by MKW that Basler corrective action is complete.

A review of the computer base of customer orders has verified Illinois Power is the sole receiver of part number 90-72300-116 model number MOC 3502, also no similar qualifications of safety related components exists at Power Systems.

I apologize for my tardiness in generation of this correspondence. This was due in part to investigations completed Aug. 17, 1994 to support this response.

Sincerely,

Michael Nuding
Michael Nuding
GMQA

MBN/jbg

Enclosure

c: T. Easterday
V. Mitchell
D. Galeazzi
P. Glandt
F. Amend
D. Hartley
File

QA-CD-94-06

REPORT NO.: MP-BAS-9072300116-1
REVISION: 0
DATE: 2/2/94

APPENDIX B
PAGE 1 OF 2

TEST PROCEDURE

COMPONENT: Motor Operated Potentiometer
P/N: 90-72300-116

MANUFACTURER: Basler Electric
Box 269, Route 143
Highlands, Illinois 62249

1. TEST SET UP:

- (A) One (1) 125 VDC power source.
- (B) One (1) resistance decade box.

2. PROCEDURE:

- (A) Using an ohmmeter, verify the resistance of the potentiometer when measured across terminals 14-16 is 157.5 to 192.5 ohms. Record actual value below:

14-16 Resistance: _____ ohm.

- (B) Jumper terminals 5-6 and 3-6. With an ohmmeter across terminals 14-15: connect 125 VDC to terminals 1-2, connect jumper between terminal 4-7, and verify resistance decreases.

Voltage: _____ VDC.

Resistance decreases: ____ yes ____ no.

- (C) Remove jumper from 5-6 and place on 6-7. Jumper 4-5 and verify resistance increases.

Resistance increases: ____ yes ____ no.

- (D) Remove 125 VDC and all jumpers.

3. Attach device serial number identification. Use format MK-IWO-1.2 (etc.)

S/N: _____.

REPORT NO.: MP-BAS-9072300116-1
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APPENDIX B
PAGE 2 OF 2

4. Record the following information for the instruments used to test the component:

<u>INSTRUMENT</u>	<u>MANUFACT.</u>	<u>MODEL #</u>	<u>SERIAL #</u>	<u>CALIBRATION DETAILS</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

All test values are within specified Acceptance Criteria.

Tester Signature: _____ Date: _____

QC Signature: _____ Date: _____

Engineer's Signature: _____ Date: _____

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14-16 Resistance: _____ ohm.

- (B) Jumper terminals 5-6 and 3-6. With an ohmmeter across terminals 14-15: connect 125 VDC to terminals 1(+) and 2(-), connect jumper between terminals 4-7, and verify resistance decreases.

Voltage: _____ VDC.

Resistance decreases: ____ yes ____ no.

- (C) Remove jumper from 5-6 and place on 6-7. Jumper 4-5 and verify resistance increases.

Resistance increases: ____ yes ____ no.

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