Consumers Power Company

General Offices: 1945 West Parnall Road, Jackson, MI 49201 • (517) 788-0550

February 29, 1984

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

DOCKET 50-255 - LICENSE DPR-20 -
PALISADES PLANT - TITLE 10 CFR 21 REPORT -
DEFECTIVE SIEMENS ALLIS BREAKERS

The attached 10 CFR 21 Report provides information on the apparent design deficiency discovered in the Siemens Allis Model #MA-205B Stored Energy Circuit Breaker. As a result of an evaluation of the deviation, it was determined that this occurrence is reportable in accordance with 10 CFR 21, "Reporting of Defects and Noncompliances."

This correspondence confirms a telecon report made to Mr Robert DeFayette of your staff on February 24, 1984 and thus conforms with the notification criteria of 10 CFR 21.21(b)(2).

Brian D Johnson

Brian D Johnson
Staff Licensing Engineer

CC Director, Office of Nuclear Reactor Regulation
Director, Office of Inspection and Enforcement
NRC Resident Inspector-Palisades

Attachment

oc0284-0352a142

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Consumers Power Company
Palisades Plant
Docket 50-255

10 CFR 21 REPORT
DEFECTIVE BREAKERS

February 29, 1984

3 pages

ic0284-0352b142

10 CFR 21 REPORT
Defective Breakers

1) Name and address of individual informing the Commission:

Brian D Johnson
Consumers Power Company
1945 W Parnall Road
Jackson, MI 49201

2) Facility identification, activity or basic component which fails to comply or contains defects is:

Siemens Allis Model # MA-250B
Stored Energy Circuit Breaker

3) The firm constructing facility or supplying the basic component which failed to comply or contained defect is:

Siemens Allis, Inc.
5700 West Hemlock St.
Milwaukee, WI 53223
(404) 457-2810

4) a. Nature of defect or failure to comply is:

The orientation of the breaker indication wire hold down device is not specified on the breaker design drawings, thereby allowing the indication wire to be orientated such that it can inhibit breaker operation. If improperly oriented, the indication wire can interfere with the movement of the prop latch, resulting in at least two modes of breaker failure. In the first mode, the prop latch cannot function properly, which prevents the charging springs from becoming fully charged. As a result, when an attempt is made to close the breaker, there is insufficient stored energy to close the breaker and the breaker trips open. In the second mode, the indication wire can inhibit the prop latch from indicating that the charging springs are fully charged. Therefore, the charging motor continues to operate continuously, cycling the charging springs and preventing breaker operation. In both modes, the net result is the breaker cannot be closed locally or remotely.

The defect was initially discovered during evaluation and corrective action for a recent loss of communications event (LER 84-001). Two additional breakers have subsequently been inspected with the orientation problem noted in one of the breakers. Consequently, two of the three breakers inspected have had the orientation problem.

b. The safety hazard which was or could be created is:

Breakers of this type are used to supply both station power and startup power to the class 1E 2400 volt buses 1C and 1D from which all emergency safeguards loads are supplied. Additionally, breakers of this type supply station power and startup power to the 4160 volt buses 1A and 1B, which provide power to the primary coolant pumps.

5) The date when information of defect or failure to comply was obtained is:

February 21, 1984

6) In the case of a basic component which contains a defect or fails to comply, the number and location of all such components in use at, supplied for or being supplied for one or more facilities or activities subject to Part 21 is:

There are 11 breakers of this type in use at the Palisades Nuclear Plant. Their location is as follows:

Breaker Number	Supply Function
	Station Power to Bus
252-101	1A
252-201	1B
152-105	1C
152-203	1D
152-302	1F
	Startup Power to Bus
252-102	1A
252-202	1B
152-106	1C
152-202	1D
152-303	1E
152-310	Bus 1E supply to Transformers 90 and 91

7) a. The corrective action planned or taken is:

1. Inspect all breakers of this type to assure correct orientation of indication wire hold down device.
2. Contact the breaker vendor to determine appropriate permanent repair.
3. Upon determination of appropriate permenent repair, revise applicable maintenance procedures and periodic inspection requirements to reflect the repairs.

b. The name of the individual/organization responsible is:

Palisades Nuclear Plant

c. The length of time required to complete action was or is estimated to be:

1. The breaker inspection and hold down device orientation will be completed by April 1, 1984.
2. Determination of a permanent fix and implementation is expected by June 1, 1984.

8) Any advice related to the defect or failure to comply about the facility, activity, or basic component that has been, is being or will be given to purchasers or licensees:

None

Prepared By DWRogers (signed) Date 2-22-84

Approved Yes X No ____ David J VandeWalle 2/24/84
Nuclear Licensing Administrator Date