



Commonwealth Edison

One First National Plaza, Chicago, Illinois
Address Reply to: Post Office Box 767
Chicago, Illinois 60690

DMB

July 7, 1983

Mr. James G. Keppler, Regional Administrator
- Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

Subject: LaSalle County Station Units 1 and 2
10 CFR 50.55(e) Report No. 83-03, Final
Report - Medium Voltage Circuit Breakers
NRC Docket Nos. 50-373 and 50-374

Reference (a): May 24, 1983, letter from Mr. J.E.
Murray of Brown Boveri Electric, Inc.
to Mr. J.R. Gilliom.

Dear Mr. Keppler:

Commonwealth Edison Company notified Mr. Roger Walker of NRC Region III on June 13, 1983, of a possible defect with the ESF Divisions I and II 4 KV circuit breakers. This notification was made in accordance with 10 CFR 50.55(e), and this final report fulfills the 30 day reporting requirement of that regulation.

Description of Deficiency

In a letter dated May 24, 1983, Brown Boveri Electric, (formerly ITE) notified Commonwealth Edison of a problem that Philadelphia Electric Company had with an ITE type HK circuit breaker. The breaker inadvertently closed following completion of the spring charging because the close latch slipped. At the end of the charging cycle the closing springs drives the close latch roller against the close latch, and the shock caused the latch to slip on the breaker. They corrected this problem by adding a light spring to the close latch in the breaker operating mechanism. This spring reduces the shock and the clearances in the close latch and associated linkages.

The ESF Divisions I and II 4KV circuit breakers at LaSalle are ITE type 5HK350, and Brown Boveri stated that they omitted this spring in the production of these breakers between June, 1975, and June, 1977. Since the 4KV switchgears were delivered either during or immediately after this time period, we requested the station to inspect the breakers so that we could determine if this deficiency was applicable to LaSalle. The station found that most of the safety related ITE type HK circuit breakers were manufactured during this time period. The attached lists indicate the production date for each breaker.

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Analysis of Safety Implications

If an ESF Division I or II 4KV circuit breaker closes inadvertently, the Class IE power system for that division could fail, especially upon loss of off-site AC Power. Closure of a breaker for a non-ESF load after the diesel generator had been automatically connected to the ESF bus would overload the diesel generator. Also, an inadvertent closure of a diesel generator output breaker will damage the generator.

Corrective Action

LaSalle Station will install the close anti-shock spring to each ITE type HK circuit breaker that does not have one. The schedule for completing this work on each unit is prior to start up after the first refueling outage. The parts are expected to be delivered in September. We do not believe that immediate corrective action is required because this problem has only occurred on one ITE type HK breaker to date and has not occurred at LaSalle.

If there are any further questions regarding this matter, please contact this office.

Very truly yours,

C. W. Schroeder 7/7/83

C. W. Schroeder
Nuclear Licensing Administrator

lm

cc: Director of Inspection and
Enforcement - Washington, D.C.
NRC Resident Inspector - LSCS

6902N

Unit 1 Switchgears

4160V Switchgear 141Y
ESF Division I

<u>Cubicle</u>	<u>Production Date</u>	<u>Breaker Type</u>	<u>Rated Continuous Current (A)</u>	<u>Nominal MVA</u>
1	9/75	5HK	3000	350
2	N/A	N/A	N/A	N/A
3	9/75	5HK	1200	350
4	9/75	5HK	1200	350
5	9/75	5HK	1200	350
6	9/75	5HK	1200	350
7	9/75	5HK	1200	350
8	9/75	5HK	1200	350
9	9/75	5HK	1200	350
10	9/75	5HK	3000	350
11	9/75	5HK	1200	350
12	9/75	5HK	1200	350
13	9/75	5HK	1200	350
14	4/78	5HK	1200	350

4160V Switchgear 142Y
ESF Division II

<u>Cubicle</u>	<u>Production Date</u>	<u>Breaker Type</u>	<u>Rated Continuous Current (A)</u>	<u>Nominal MVA</u>
1	10/75	5HK	3000	350
2	N/A	N/A	N/A	N/A
3	10/75	5HK	1200	350
4	10/75	5HK	1200	350
5	10/75	5HK	1200	350
6	10/75	5HK	1200	350
7	10/75	5HK	1200	350
8	10/75	5HK	1200	350
9	10/75	5HK	1200	350
10	10/75	5HK	3000	350
11	10/75	5HK	1200	350
12	10/75	5HK	1200	350
13	10/75	5HK	1200	350
14	4/78	5HK	1200	350

Unit 2 Switchgears

4160V Switchgear 241Y
ESF Division I

<u>Cubicle</u>	<u>Production Date</u>	<u>Breaker Type</u>	<u>Rated Continuous Current (A)</u>	<u>Nominal MVA</u>
0	1/76	5HK	1200	350
1	2/76	5HK	1200	350
2	2/76	5HK	1200	350
3	12/75	5HK	3000	350
4	1/76	5HK	1200	350
5	2/76	5HK	1200	350
6	4/78	5HK	1200	350
7	2/76	5HK	1200	350
8	1/76	5HK	1200	350
9	2/76	5HK	1200	350
10	1/76	5HK	1200	350
11	N/A	N/A	N/A	N/A
12	12/75	5HK	3000	350

4160V Switchgear 242Y
ESF Division II

<u>Cubicle</u>	<u>Production Date</u>	<u>Breaker Type</u>	<u>Rated Continuous Current (A)</u>	<u>Nominal MVA</u>
1	4/78	5HK	1200	350
2	2/78	5HK	1200	350
3	2/76	5HK	1200	350
4	2/76	5HK	1200	350
5	2/76	5HK	3000	350
6	2/76	5HK	1200	350
7	2/76	5HK	1200	350
8	2/76	5HK	1200	350
9	2/76	5HK	1200	350
10	2/76	5HK	1200	350
11	2/76	5HK	1200	350
12	2/76	5HK	1200	350
13	N/A	N/A	N/A	N/A
14	2/76	5HK	3000	350



Brown Boveri Electric, Inc.

ELS

Manufacturer of I-T-E Electrical Power Equipment

Please

May 24, 1983

Commonwealth Edison Company
P.O. Box 767
Chicago, Illinois 60690

Attention: Mr. J.R. Gillion, Manager
Station Nuclear Engineering Department

Subject: LaSalle County Station
Medium Voltage Metal-Clad Switchgear
Your P.O. No. 167530

Gentlemen:

Recently, the Philadelphia Electric Company filed an interim report with the N.R.C. identifying a problem with the close latch on one of approximately 150 Type HK circuit breakers we furnished at their Limerick Generating Station.

You have this type of circuit breaker at your LaSalle County Station.

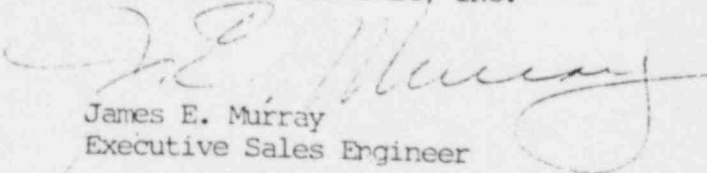
Although you were probably notified of this by the N.R.C., we are forwarding a copy of our response with attachments.

Since we have so many Type HK circuit breakers in Nuclear Plants, we are forwarding this response to all customers who took delivery of circuit breakers prior to June 1977, after which an anti-shock spring was added to the close latch.

Please distribute this information to the responsible parties in your organization and to the appropriate personnel at LaSalle County Station.

Yours very truly,

BROWN BOVERI ELECTRIC, INC.


James E. Murray
Executive Sales Engineer

JEM:has
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