



October 14, 1991

Director, Office of Nuclear Reactor Regulation
US Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Notification of Potential Generic Defects
Per 10CFR Part 21

Notification By: ABB Power T & D Company
7036 Snowdrift Road, Suite 2
Allentown, Pa. 18106
Harry A. Hinch
Manager Quality Control

An ABB type 59G relay (catalog 211E1175/serial #1160) was returned by Duquesne Light Co. from the Beaver Valley Station for analysis. Examination revealed that several solder connections where the leads from (3) wirewound 3 and 5 watt power resistors and (1) zener diode connect to the printed wiring runs on the bottom of the circuit board, have deteriorated due to thermal stress.

This is similar to the problems reported in Feb. 1990 and July 1990, regarding the types 27/59 and 47 relays. Namely, that the small pads used in the printed circuit wiring pattern do not allow sufficient heat dissipation and over a long period of time the thermal stress may cause the bond of the printed wiring pattern to the glass-epoxy circuit board to lift from the surface of the board. This jeopardizes the integrity of the connections. No failure in service has been reported, however, should the connection fail, the relay would not operate properly.

Upon examination of our records we have determined that type 59G relays were manufactured with the small solder pads in the time span of October 1975 through August 1982. Circuit boards using the small pads have one of the following identification numbers printed on the circuit board:

608374-002
608374-003
608374-004

ABB recommends that all type 59G relays, catalog number 211E1175 with printed circuit boards identified with one of the above numbers be replaced with new relays.

9112260219 911014
PDR ADOCK 05000327
S PDR

ABB Power T & D Company Inc.



Please contact your local ABB Field Sales Office or the Allentown Relay Division, Total Quality Department for further information.

Relays identified from our records as being in nuclear service are listed on the attached page. Some of those listed may be non-IE application.

Prepared By:

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ABB Power T & D Company Inc.



Type (ITE) 59G Ground Voltate Relays - Nuclear Service

With printed circuit board 608374-004, 003, 002

All relays are catalog number 211E1175.

<u>Qty.</u>	<u>S/N</u>	<u>End User</u>	<u>OEM</u>	<u>PO#</u>	<u>ABB SO#</u>	<u>Ship Date</u>
2	1094	Duquesne Light	- Beaver Valley			
			ABB Swgr	K77769-50438	26495	2/78
4	1134,1154 1156,1157		ABB Swgr	K77768-50438	26494	7/78
4	1155,1158 1159,1160		ABB Swgr	K79969-50438	27032	9/78
4	3653,3656 3657,3658		ABB Swgr	S12883-55083	41894	7/82
17	range 1138- 1163	CEI - Perry	ABB Swgr	8-51816-101- 4225	28871	9/78
8	2664-1671		ABB Swgr	8-51817-103- 4248	28872	9/78
2	3111,3112	Carolina P & L - Shearon Harris	ABB Swgr	J-9561252522	31817	8/79
3	3120,3122 3127		ABB Swgr	J-9799652522	32898	10/79
4	3241-3244		ABB Swgr	J-9978452522	33649	9/80
1	3229		ABB Swgr	J-5594052994	36095	9/80
1	3479		ABB Swgr	J-6465352995	39605	11/81
2	3454,3455	Gulf States Utilities - River Bend	Powell Elec	61651-3	37514	3/81
2	3456,3457		Powell Elec	61650-3	37515	3/81
2	3042,3048	Florida P & L - St. Lucie	ABB Swgr	S1060654887	39306	10/81
1	3204	Duke Power Co. - Catawba	Direct Sale	E-99493-32	33858	4/80
1	3471	TVA - Yellow Creek	ABB Swgr	J6148954781	38049	5/81
2	3485,3487		ABB Swgr	J6091954501	39251	10/81
4	3574-3577	TVA - Watts Bar, Sequoyah	ABB Swgr	J6773954388	41143	4/82

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