

PHILADELPHIA ELECTRIC COMPANY

2301 MARKET STREET

P.O. BOX 8699

PHILADELPHIA, PA. 19101

(215) 841-4502

S. J. KOWALSKI
VICE-PRESIDENT
NUCLEAR ENGINEERING

Mr. W. T. Russell, Administrator
U.S. Nuclear Regulatory Commission, Region 1
Attn: Document Control Desk
Mail Station No. P1-137
Washington, DC 20555

Subject: Significant Deficiency Report Nos. 230-2 and 231-2
Final Report for Failures of Aluminum Vertical Bus
and Belleville Washers in Cutler-Hammer MCCs
Limerick Generating Station, Unit 2
NRC Construction Permit No. CPPR-107

References: 1. Letter from S. J. Kowalski to W. T. Russell
(NRC) dated July 15, 1988 (SDR No. 230-2)
2. Letter from S. J. Kowalski to W. T. Russell
(NRC) dated July 15, 1988 (SDR No. 231-2)

File: QUAL 2-10-2 (SDR Nos. 230-2 and 231-2)

Dear Sir:

This letter is our final response as committed to in our previous correspondence, References 1 and 2, that were forwarded in accordance with 10CFR Part 50.55(e) requirements. These deficiencies were determined to be reportable per 10CFR Part 50.55(e).

Our evaluation of the subject deficiencies has been completed and corrective action determined as follows:

SDR No. 230-2

The manufacturer has recommended replacement of aluminum vertical bus with tin plated copper bus on MCC vertical sections feeding size 3 and 4 motor starters and/or feeder breakers rated 70 amp or greater. We are taking a more conservative approach and are replacing all of the aluminum vertical bus with tin plated copper bus.

The use of tin plated copper bus will preclude bus failures at the connection point between the compartment stab block and the vertical bus because of copper's greater heat transfer capability.

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SDR No. 231-2

To resolve the deficiency with the Belleville washers and to preclude its recurrence we are replacing the existing plated carbon steel washers, used at the vertical bus to horizontal bus connection point, with stainless steel Belleville washers. These new washers are functionally similar to the original design and are not as susceptible to hydrogen embrittlement because a plating process is not involved.

The rework associated with both deficiencies discussed above will be completed prior to Limerick Generating Station, Unit 2 startup.

In conclusion, we consider SDR Nos. 230-2 and 231-2 closed with the issuance of this report. If you have any further questions, please contact us.

Sincerely,



DSM/sw/09208801

Copy to: W. T. Russell, Administrator
United States Nuclear Regulatory Commission
Region 1
631 Park Avenue
King of Prussia, PA 19406

R. A. Gram, Senior Resident Inspector
Limerick Generating Station, Unit 2
U.S. Nuclear Regulatory Commission
Sanatoga, PA 19464