

December 15, 2017

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

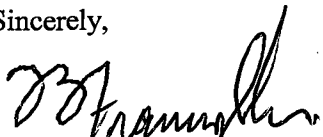
SUBJECT: 10 CFR PART 21 REPORT REGARDING DISPOSITION OF A NONCONFORMANCE
ON WESTINGHOUSE / EATON CUTLER HAMMER PART NUMBER KD2200U18
(WITH TRIP UNIT P/N KT200T AND TERMINALS TA300K FACTORY
INSTALLED) FOR PALISADES

The attachment to this letter provides a report in accordance with 10 CFR 21.21 pertaining to a potential deviation associated with Westinghouse / Eaton Cutler Hammer P/N KD2200U18 supplied to Palisades Nuclear Power Plant.

A copy of the report will be mailed to our affected nuclear customers.

If you have any questions pertaining to this information, please contact Timothy Franchuk, Director of Quality Assurance, at 513-201-2176.

Sincerely,



Timothy Franchuk
Director, Quality Assurance
Nuclear Division
Curtiss-Wright

cc: Regional Administrator, USNRC, Region III

IE19
NRR

10 CFR Part 21 Report Regarding Disposition of a Non-Conformance of Westinghouse / Eaton Cutler Hammer KD MCCB under-voltage release mechanism for Entergy Palisades Nuclear Power Plant

This report is being provided as a final report in accordance with 10 CFR 21.21

(i) Name and address of the individual or individuals informing the Commission

Timothy Franchuk
Director, Quality Assurance
Nuclear Division
Curtiss-Wright
4600 East Tech Drive, Cincinnati, OH 45245

Mike Wooldridge
Product Manager/Principal Engineer CGD
Nuclear Division
Curtiss-Wright
4600 East Tech Drive, Cincinnati, OH 45245

(ii) Identification of the facility, the activity, or the basic component supplied for such facility or such activity within the United States which fails to comply or contains a defect.

Westinghouse / Eaton Cutler Hammer P/N KD2200U18 containing CAT# UVH3LB08 Style 1492D79G24 under-voltage release mechanism (manufactured prior to 1999).

(iii) Identification of the firm constructing the facility or supplying the basic component which fails to comply or contains a defect.

Curtiss-Wright Nuclear Division

(iv) Nature of the defect or failure to comply and the safety hazard which is created or could be created by such a defect or failure to comply.

Palisades has reported a failure of the under-voltage dropout mechanism to trip the breaker in an under-voltage condition.

(v) The date on which the information of such defect or failure to comply was obtained.

The discovery date of the deviation that requires evaluation is October 17, 2017, based on the date that Palisades alerted Curtiss-Wright of the potential defect within the Molded Case Circuit Breaker.

(vi) In the case of a basic component, which contains a defect or fails to comply, the number and location of these components in use at, supplied for, being supplied for, manufactured, or being manufactured for one or more facilities or activities subject to the regulation in this part.

Address

Entergy (formerly Consumers Power Co.)
Palisades Generating Plant
27780 Blue Star Memorial HWy.
Covert, MI 49043

Total Quantity: 6

(vii) The evaluation and corrective action which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and length of time that has been or will be taken to complete.

Evaluation: Palisades provided a Failure Analysis Report 8210-1 (written by UCI) with which CW concurs and is attached. Findings indicated that the under-voltage release mechanism's failure was a result of a misalignment of the solenoid due to excessive play in the design/manufacturing process which allowed the plunger to miss the target that would cause the breaker to trip in an under-voltage condition. (In the 1992 version, the under-voltage release was identified as a CAT UVH3LB08 Style 1492D79G24 in the assembled breaker P/N KD2200U18.) Palisades identified this failure and mentioned two previous failures, one in 1996, and one in 2009.

Corrective Action: The under-voltage trip mechanism was redesigned in the 1997-1998 time frame. The new design has not exhibited any reported failures. (In the 2016 version, the under-voltage release was identified as CAT UVH3LP08K Style 1482D05G04 in the assembled breaker P/N KD2200Z01U18.)

(viii) 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.

The observed failure on a 1992 breaker having failed in the installed condition took 50 trials to repeat the failure. Given that the excessive play could be a result of combined tolerances, worn tooling, as well as the design itself, and since the OEM has redesigned this mechanism almost 20 years ago, CW would recommend end users to conduct their own evaluation to determine if a defect, which could create a substantial safety hazard, exists.

Customer	Plant	Customer PO#:	Year sold/shipped	CC/CJ/Pkg#	MCCB	Qty	Tag#	S/N / Date Code
Entergy	Palisades	G0025039	1992	74117.1	KD2200U18	6	7411701	01-06/911105-I

Affected Date of manufacture is prior to 1999