

# **HARLO** CORPORATION

CONTROL PANEL DIVISION • 4210 FERRY ST., GRANDVILLE, MICHIGAN 49418 • PHONE: (616) 538-0550

September 19, 1983

Nuclear Regulatory Commission  
Office of Inspection & Enforcement  
Washington D.C. 20555

Subject: Deficiency Reporting (10CFR21)

Reference: Arizona Nuclear Power Project  
Deficiency Evaluation Report DER 83-43  
P.O. 10402-13-EM-022  
Harlo Job 13966N

Gentlemen:

On September 12, 1983 Harlo Corporation was notified by ANPP that during startup activities random wire terminations in the Auxiliary Relay Cabinets provided by Harlo on the referenced purchase order and job number, evidenced non-conformance in the area of termination crimping on some of the AMP terminal connectors. The deficiency as reported consists of either the conductor not being visible thru the barrel of the terminal connector or extending such length thru the barrel as to evidence possible interference with the termination screw.

The AMP criteria applied by Bechtel Power Corporation and the Harlo Project Wiring Procedures for the project both state that the conductors should be flush with the end of the barrel or protrude thru the connector barrel approximately 1/16". To the best of our knowledge no tests prior to replacement were performed by ANPP to verify the electrical and mechanical integrity of the terminations in question and ANPP judgement to replace was based on the foregoing stated AMP criteria. Replacement of these terminations was performed by project personnel with Harlo concurring, subject to ANPP invoking appropriate Q.A. surveillance and providing documentation for record as identified to the project by Harlo Corporation.

The inspection and replacement by ANPP resulted in approximately 28 termination replacements in a total of approximately 30,000 terminations for the ANPP Unit 1 requirements.

ANPP as a result has considered the deficiency a potential hazard and reportable under 10CFR50.55 (e) and additionally under the requirements of 10CFR Part 21. They have initiated deficiency evaluation report (DER) 83-43 addressing the requirements of notification under 10CFR21.21 (b) 3.

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In compliance with the requirements of sub part (vi) not addressed by ANPP we are listing on Attachment A to this letter the user facilities and specific Panels for similar equipment furnished by Harlo Corporation.

No notification of these conditions has been conveyed to Harlo Corporation from the users of similar equipment prior to this time.

Panels for all of the projects listed were inspected prior to shipment and presumably inspection was performed during installation at the job site. Harlo Corporation is not aware of the specific criteria that may have been used at the various other job sites to establish termination integrity at the time of installation.

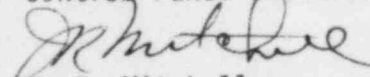
The potential for a hazardous condition existing has not been evaluated by Harlo Corporation since the termination criteria as applied by ANPP is optimum and the integrity of the individual connections in question was not thoroughly tested in each instance prior to job site decision to replace.

Based on the foregoing, at the present time we consider this condition unique to the ANPP project.

Verbal notification of this item was conveyed to NRC Region IV offices on September 13, 1983.

Very truly yours,

HARLO CORPORATION  
Control Panel Division



J. R. Mitchell  
Division Manager

Encl

cc: Nuclear Reg. Commission, Arlington, TX  
cc: W. D. Crooks, President, Harlo

JRM/ce

ATTACHMENT A

REF DER 83-43

Harlo Job No.	Customer	P.O. NO.	Panel
13951N	Wolf Creek Nuclear Site Kansas City G & E	10466-J-201-1	RP118A RP118B HC145 BM157 RP068 SP010 HF132 HF133 AC218 EF155 EF156 RP312
13952N	Callaway Nuclear Site Union Electric	10466-J-201-2	RP118A RP118B HC145 BM157 RP068 SP010 HF132 HF133 AC218 EF155 EF156 RP312 EF169 EF170
13776 13777	Byron Nuclear Site Unit 1 & Unit 2 Commonwealth Edison Co	190279	1PL04J 1PL05J 1PL06J 1PA013J 1PA014J
13780 13781	Braidwood Nuclear Site Unit 1 & Unit 2 Commonwealth Edison Co	190280	1PL04J 1PL05J 1PL06J 1PA013J 1PA014J
14261	Palisades Nuclear Site Consumers Power Co	1000-8225-Q	Hydrogen Isolation Valve Control Panels (2) (Located in Panel C11A)

Harlo Job No.	Customer	P.O. NO.	Panel
14192	Kewanee Nuclear Site Wisconsin Public Ser.	05605	HRSS Panel
14007 14008	Marble Hill Nuclear Site Unit 1 & 2 Public Ser. Co Indiana	1303-89 2119-89	1PA23J 0PA05J 2PA23J
14069	Waterford Nuclear Site Unit 3 Louisiana Pwr & Light	NY403638	Isolation Panel