



Consumers  
Power  
Company

James W Cook

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July 18, 1983

Harold R Denton, Director  
Office of Nuclear Reactor Regulation  
US Nuclear Regulatory Commission  
Washington, DC 20555

MIDLAND ENERGY CENTER  
MIDLAND DOCKET NOS 50-329, 50-330  
ANALYSIS OF NNI/ICS FAILURES  
CORRECTION TO BAW-1743  
FILE: M1.35 SERIAL: 23860

Reference: "Failure Mode and Effects Analysis of the Midland NNI and ICS,"  
BAW-1743, Dated July 1982.

This letter forwards information recently obtained by B&W during an analyses of NNI/ICS failures for the generic Pressurized Thermal Shock Study. These analyses revealed an error in Table 6 of BAW-1743 dealing with postulated failure number 4. This information was transmitted to Consumers Power Company in a letter dated June 22, 1983 from B&W which is enclosed as an attachment.

Table 6 of BAW-1743 presents a description of 12 NNI/ICS power supply failures and the transient response of the Midland plant to each failure. Failure 4 incorrectly states that the turbine bypass valves will fail open. Actually, there is no signal that will cause the turbine bypass valves to fail open for this failure. This conclusion is supported by the data presented in Table 5d of BAW-1743.

The enclosed B&W letter provides a revision for the description of failure 4 in Table 6 on page 44 of BAW-1743.

Please contact us if you have any further questions.

*James W. Cook*

JWC/MFC/dlm

CC RJCook, Midland Resident Inspector  
JGKeppler, Administrator, NRC Region III

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CONSUMERS POWER COMPANY  
Midland Units 1 and 2  
Docket No 50-329, 50-330

Letter Serial 23860 Dated July 18, 1983

At the request of the Commission and pursuant to the Atomic Energy Act of 1954, and the Energy Reorganization Act of 1974, as amended and the Commission's Rules and Regulations thereunder, Consumers Power Company submits corrections to BAW-1743, "Failure Mode and Effects Analysis of the Midland NNI and ICS," dated July 1982.

CONSUMERS POWER COMPANY

By J W Cook  
J W Cook, Vice President  
Projects, Engineering and Construction

Sworn and subscribed before me this 19<sup>th</sup> day of July 1983.

Beverly A. Avery  
Notary Public  
Jackson County, Michigan

My Commission Expires January 16, 1985

# Babcock & Wilcox

a McDermott company

Utility Power Generation Division

3315 Old Forest Road  
P.O. Box 1260  
Lynchburg, Virginia 24505-1260  
(804) 385-2000

June 22, 1983

CPCO: 4382  
File: 12B/T1.2

Consumers Power Company  
1945 Parnall Road  
Jackson, MI 49201

Attention: Mr. L.S. Gibson  
Project Engineering Manager

Subject: Consumers Power Company  
Midland Plant, Units 1 and 2  
CORRECTION TO BAW-1743

Reference: "Failure Mode and Effects Analysis of the Midland NNI and ICS",  
BAW-1743, dated July 1982.

Dear Mr. Gibson:

Recent analyses of NNI/ICS failures on the generic Pressurized Thermal Shock Study has revealed an error in BAW-1743. Table 6 of BAW-1743 presents a description of 12 NNI/ICS power supply failures and the transient response of the Midland plant to each failure.

Failure 4, a loss of 118 volt ac power to the NNI-X system at 30% power level incorrectly states that the turbine bypass valves will fail open to 50% and cause depressurization of both steam generators. For this failure, there is no signal that will cause the turbine bypass valves to fail open; thus, there will not be any depressurization of steam generators nor overcooling of the RCS. This prediction is supported by the data presented in Table 5d of BAW-1743.

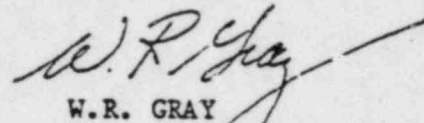
Please revise the descriptive test of failure 4 in Table 6 displayed on page 44 of BAW-1743 to read as follows:

Failure No.	Type of Failure	Description of Transient	Reactor Tripped?	Transient bounded by FSAR analy.
4	Fail MNI-X 118 V ac at 30% power	This is an upset transient with mild overheating. The reactor trip does occur during overheating of the RCS. Overheating was caused by loop A&B Btu limits reducing FW flows to zero when loop A T-hot signal failed to 570F. EFW flow was started by low SG level, and the decreasing OTSG pressure caused an increase in EFW flow rate the OTSGs. Reactor tripped on high RC pressure.	Yes	FSAR 15.2.7

The original description of the plant response to this failure was based on a simulated power supply failure (and resulting loss of input signals) to B&W's Advanced Controls Research Facility simulation of the Midland plant and ICS. We believe that we mistakenly included the opening of the turbine bypass valves during this transient and then described the resulting transient in Table 6. During the Pressurized Thermal Shock (PTS) study, we became aware of our having conducted that particular power supply failure incorrectly.

If any further information is needed, please call.

Respectfully,

  
W.R. GRAY  
PROJECT ENGINEER

FOR: D.F. JUDD  
MANAGER, CONTRACT MGMT.

WRG/leh  
cc: DT PERRY  
DB MILLER  
EM HUGHES  
WH SPANGLER  
FW BUCKMAN  
RM HAMM  
DA SOMMERS