



**Consumers  
Power  
Company**

**James W Cook**

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May 4, 1982

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

MIDLAND PROJECT  
MIDLAND DOCKET NOS 50-329, 50-330  
SAFETY EVALUATION REPORT INFORMATION  
FILE: 0505.16 SERIAL: 16904

Enclosure: Challenge to Safety Valves Caused by Steam Generator  
Overfill Protection System

The enclosure provides information requested by the NRC Staff to facilitate their review of the Midland FSAR with respect to generating the Safety Evaluation Report. This information will close out the outstanding item involved.

*James W. Cook*

JWC/JRW/fms

CC RJCook, Midland Resident Inspector  
RHernan, US NRC  
DBMiller, Midland Construction (3)  
RWHuston, Washington

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CHALLENGE TO SAFETY VALVES CAUSED BY STEAM GENERATOR  
OVERFILL PROTECTION SYSTEM

Item

Demonstrate that the reactor system safety valves will not be challenged following main feedwater isolation valve closure by the steam generator overfill protection system.

Response

B&W performed an analysis of excessive feedwater to both steam generators at full power. The analysis utilized a digital plant simulation available at the Lynchburg Research Center. The reactor tripped on high pressure but operation of the PORV at 2260 psig (setpoint) prevented a challenge to the safety valves. The reactor coolant pressure had decreased to approximately 2050 psig prior to feedwater isolation. Taking uncertainties into account, the margin to the safety valve setpoint was between 20 and 70 psi. Excessive feedwater and loss of feedwater are bounded by the safety analyses presented in the Midland FSAR.

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

Letter Serial 16904 Dated May 4, 1982

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 the enclosure to CP Co letter Serial 16904 dated May 4, 1982 entitled, Challenge to Safety Valves Caused by Steam Generator Overfill Protection System.

CONSUMERS POWER COMPANY

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

Sworn and subscribed before me this 4 day of May, 1982.

Barbara Blum  
Notary Public  
Jackson County, Michigan

My Commission Expires September 8, 1984