



# Nebraska Public Power District

COOPER NUCLEAR STATION  
P.O. BOX 98, BROWNVILLE, NEBRASKA 68321  
TELEPHONE (402) 825-3811

CNSS800454

July 22, 1980

Mr. K. V. Seyfrit  
U.S. Nuclear Regulatory Commission  
Office of Inspection and Enforcement  
Region IV  
611 Ryan Plaza Drive  
Suite 1000  
Arlington, Texas 76011

Dear Sir:

This report is submitted in accordance with Section 6.7.2.B.2 of the Technical Specifications for Cooper Nuclear Station and discusses a reportable occurrence that was discovered on June 22, 1980. A licensee event report form is also enclosed.

Report No.: 50-298-80-21  
Report Date: July 22, 1980  
Occurrence Date: June 22, 1980  
Facility: Cooper Nuclear Station  
Brownville, Nebraska 68321

Identification of Occurrence:

Condition leading to operation in a degraded mode permitted by a limiting condition for operation as delineated in Section 3.7.D of the Technical Specifications.

Conditions Prior to Occurrence:

The reactor was operating at a steady state power level of approximately 48% of rated thermal power.

Description of Occurrence:

While performing routine Surveillance Test Procedure 6.3.9.4, MSIV-86A was found to have a closing time faster than allowed by Technical Specifications.

Designation of Apparent Cause of Occurrence:

The apparent cause of this occurrence has been attributed to setting the MSIV closing rate too close to the Technical Specification limit when the reactor was in a cold shutdown condition.

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**Analysis of Occurrence:**

At least once per quarter, with reactor thermal power less than 75%, the main steam isolation valves will be tripped individually and closure time verified. The Technical Specification closure time limit, T, is 3 seconds  $< T < 5$  seconds. This setting is slow enough to prevent a more severe transient on the nuclear system than closure of the turbine stop valves with failure of the bypass valves. It is fast enough to prevent fuel barrier damage by limiting the loss of reactor coolant. A hydraulic dashpot functions as a hydraulic buffer and is utilized to control the speed with which the isolation valve is closed by the air actuator.

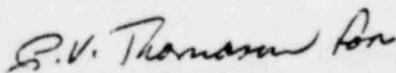
On May 19, 1980, during the scheduled refueling outage, the closing time for MSIV-86A was set at 3.5 seconds. All other MSIV's closing times were acceptable. On June 22, 1980, while performing routine Surveillance Test Procedure 6.3.9.4, MSIV-86A was found to have a closing time of 2.5 seconds. During the test, the steam flow through the "A" main steam line was approximately  $1.3 \times 10^6$  lb/hr. The steam flow assists the MSIV's closure due to the valve design and position in the steam line and this caused the actual hot closure time to be less than the cold closure time.

This occurrence presented no adverse consequences from the standpoint of public health and safety.

**Corrective Action:**

The hydraulic dashpot was immediately adjusted to increase the closing time. Surveillance Test Procedure 6.3.9.4 was performed and MSIV-86A was found to have a closing time of 3.2 seconds. Surveillance Test Procedure 6.3.9.4 has been changed to provide a closing time limit of 4 to 4.5 seconds when performed with the reactor in a cold shutdown condition.

Sincerely,



L. C. Lessor  
Station Superintendent  
Cooper Nuclear Station

LCL:cg  
Attach.