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BBS Ltr. #322-75

Dresden Nuclear Power Station
 R. R. #1
 Morris, Illinois 60450
 May 23, 1975

Mr. James G. Keppler, Regional Director
 Directorate of Regulatory Operation-Region III
 U. S. Nuclear Regulatory Commission
 799 Roosevelt Road
 Glen Ellyn, Illinois 60137



SUBJECT: REPORT OF ABNORMAL OCCURRENCE PER SECTION 6.6.A OF THE TECHNICAL SPECIFICATIONS
FAILURE OF CONTAINMENT COOLING WATER VALVES 1501-3A & B

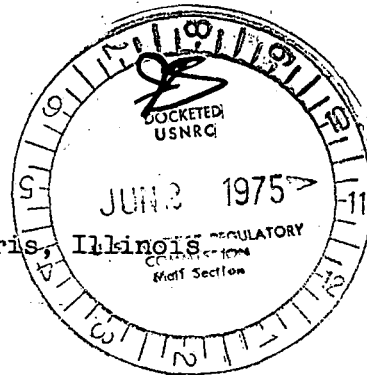
- References:
- 1) Regulatory Guide 1.16 Rev. 1 Appendix A
 - 2) Notification of Region III of U. S. Nuclear Regulatory Commission
 Telephone: Mr. Johnson, 1050 hours on May 16, 1975
 Telegram: Mr. Keppler, 1540 hours on May 16, 1975
 - 3) Drawing Number P & ID M-29

Report Number: 50-237/75-28

Report Date: May 23, 1975

Occurrence Date: May 6, 1975

Facility: Dresden Nuclear Power Station, Morris, Illinois



IDENTIFICATION OF OCCURRENCE

The containment cooling service water valves MO-1501-3A & 3B failed to control flow during a LPCI/Containment cooling logic test. This problem was not reported at the time of the occurrence because the containment cooling system was not required for operation and had not yet been declared operable following the heat exchanger cleaning. Subsequent review of the occurrence determined that the incident was reportable.

CONDITIONS PRIOR TO OCCURRENCE

At the time of this occurrence, Unit-2 was in a refueling outage with the reactor mode switch in the SHUTDOWN position.

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DESCRIPTION OF OCCURRENCE

At 0200 hours on May 6, 1975, the Instrument Mechanics began LPCI/Containment cooling logic testing. The 1501-3A & 3B valves are throttled automatically to maintain service water pressure 20 psig above LPCI/CC system water pressure. The valves were found to be inoperable.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE (Component Failure)

Upon inspection of the 1501-3A & 3B valves, both valve stems were found to be bent. The stems are made of 3/4" stainless steel and the motor-operators are Limitorque type SMB-0, which develop approximately 10,000 lbs of thrust. The brakes on both motor-operators were found to slip. Prior to the system logic testing, routine maintenance was performed on both containment cooling heat exchangers. Both valves were manually closed after the motor-operators disengaged in order to minimize any leakage. It is assumed that both the above conditions contributed to the bending of the valve stems.

ANALYSIS OF OCCURRENCE

The containment cooling system was not required since the reactor water temperature was below 212°F. If the system had been required, an inadvertent release of contaminated water would have occurred only if there were tube leaks in the heat exchangers. Therefore, the health and safety of the plant personnel and the public were not jeopardized as a result of this incident.

CORRECTIVE ACTION

The valve manufacturer was consulted concerning these failures. It was decided to increase the size of the valve stems; consequently, new 1" diameter stems are now on order. Pending the arrival of the new stems, another set of 3/4" stems were temporarily installed. The Limitorque brakes were adjusted to provide minimum slippage. At 1812 hours on May 17, 1975 the valves were made operable and the LPCI/Containment cooling logic testing was completed.

FAILURE DATA

A review of the history of these valves for Unit-2 & 3 reveals no similar failures. The valves are 12"-300 PSI USA standard valve assemblies manufactured by Copes-Vulcan, a division of Blaw-Knox Co.


B. B. Stephenson
Superintendent

BBS:GAR:smp

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