

November 5, 1975

Mr. Norman C. Moseley, Director, Region II
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
230 Peachtree Street, N. W., Suite 818
Atlanta, Georgia 30303

Dear Mr. Moseley:

ABNORMAL OCCURRENCE 250-75-8
TURKEY POINT UNIT 3
DATE OF OCCURRENCE, OCTOBER 26, 1975

MALFUNCTION OF "C" MAIN STEAM
ISOLATION VALVE

A. Conditions Prior to Occurrence

The reactor was critical below the power range with intermediate range nuclear instrumentation indicating 10^{-5} amps. Preparations were being made to shutdown the reactor for a scheduled refueling outage.

B. Description of Occurrence

At about 1:05 A.M. (Eastern Standard Time) on October 26, 1975, the Control Room switch which operates the "C" Main Steam Isolation Valve (MSIV) was placed in the "CLOSE" position but the valve did not close. Immediate corrective action taken to close the valve was unsuccessful. The applicable Instrumentation and Control drawings were being studied to determine possible followup action when, at about 2:30 A.M., the valve went closed.

C. Designation of Apparent Cause of Occurrence

The exact cause of the occurrence has not been determined. Inspection of related electrical and air system components and other valve externals has revealed no reason for the valve having remained open.

D. Analysis of Occurrence

The analysis of FSAR Section 14.2.5 is applicable to this occurrence. The analysis states that each of three main



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steam lines has a fast closing stop valve (MSIV) and a check valve. These six valves are arranged to prevent blowdown of more than one steam generator for any main steam line break location even if one valve does not close. The analysis then considers an uncontrolled steam release from one steam generator caused by pipe rupture or valve malfunction. The results presented are a conservative indication of the events which could occur because the analysis assumes the most pessimistic combination of circumstances which could lead to an undesirable power transient following a steam line break. The analysis concludes that no DNB would occur in the core and that the core would be ultimately shut down by the boric acid in the boron injection tank and the refueling water storage tank. Therefore, based on the safety analysis of FSAR Section 14.2.5 and the fact that there was no steam line break during the malfunction of the "C" MSIV, the health and safety of the public were not adversely affected by this occurrence.

E. Corrective Action

The "C" MSIV consists of a swing disc which is opened and held open by air pressure acting on a piston in a pneumatic cylinder. The valve is shut by air pressure assisted by spring force. Air flow is controlled by solenoid operated air valves which are energized to open and deenergized to close the MSIV.

The immediate corrective action was to pull the fuses to one pair of solenoid operated air valves to ensure that they were deenergized. When this did not cause the MSIV to close, the fuses were reinstalled and the air lines were disconnected from the pneumatic cylinder to release any air which may have been trapped in the cylinder by blockage of the air lines. There was no air trapped in the cylinder and the MSIV remained open. The air lines were then reconnected to the pneumatic cylinder.

Followup corrective action was to inspect the MSIV stem packing and the pneumatic cylinder internals for signs of mechanical binding. No indication of binding was found in either case.

The valve has been satisfactorily cycled approximately nine times since the occurrence. The investigation to determine the cause of the occurrence is continuing.

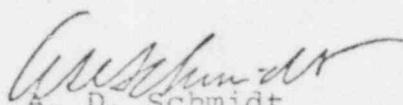
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F. Failure Data

The "C" MSIV is a 26 inch, 600 lb. A.S.A. Main Steam Line Trip Valve manufactured by Schutte and Koerting Company.

There have been no previous Abnormal Occurrences involving a MSIV.

Very truly yours,


A. D. Schmidt
Vice President
Power Resources

MAS/cpc

cc: Jack R. Newman, Esquire
Director, Office of Inspection and Enforcement (40)
Director, Office of Management Information and
Program Control (3)