



Jersey Central Power & Light Company

MADISON AVENUE AT PUNCH BOWL ROAD • MORRISTOWN, N. J. 07960 • 539-6111

December 13, 1971

Dr. Peter A. Morris, Director
Division of Reactor Licensing
United States Atomic Energy Commission
Washington, D. C. 20545

Dear Dr. Morris:

Subject: Oyster Creek Station
Docket No. 50-219
Main Steam Isolation Valve NS03B Leakage



On September 18, 1971, while the plant was being shut down for a scheduled outage, the Main Steam Isolation Valves were checked for closure times in accordance with Technical Specification requirements. The results were as follows:

NS03A - 8.2 seconds	NS03B - 3.2 seconds
NS04A - 6.9 seconds	NS04B - 7.9 seconds

The Technical Specifications require the closure times to be ≥ 3 seconds and ≤ 10 seconds (Section 4.5.1.2). Valve NS03B, while within Technical Specification limits, closed faster than desired. Upon inspection of the valve, it was observed that the hydraulic dashpot adjustment leg was leaking. Approximately 3 pints of oil were added to the dashpot and repairs made to the leaking line.

The Main Steam Isolation Valve leak testing program was initiated on November 2, 1971. At this time, the Main Steam Lines were flooded; therefore, it was possible to test the outside valves, NS04A and NS04B. The leakage tests indicated that valve NS04A was tight (2.1 SCFH). Valve NS04B was unable to be tested because the volume between valve NS03B and NS04B could not be drained of water. This was a clear indication of leakage past the seat of valve NS03B.

On November 5, 1971, the Main Steam Lines were drained and the reactor pressurized to 20 psig in order to commence testing on the 2 inner valves, NS03A and NS03B. A plot of reactor pressure versus time on the pressurization operation indicated that at least 1 valve in each steam line was tight due to the rapid pressurizing rate.

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This is based on previous experience in attempting to pressurize the reactor prior to testing the inner valves. Valve NS03A exhibited no detectable leakage as observed by the bubbler method for 15 minutes. Valve NS03B had a measured leakage rate of 110 SCFH. All of the valves (NS03A, NS03B, NS04A, and NS04B) were tested in the as-found condition following the September 18 shutdown.

Based on the above-mentioned repairs to NS03B hydraulic cylinder, the valve was cycled and timed. The closure time was 4.8 seconds which was desirable. Another leak test was performed on this valve. The results indicated 10.2 SCFH leakage. Since this value was slightly in excess of the new Technical Specification limit of 9.95 SCFH, the valve was disassembled to inspect the seating surfaces and stem for damage. Prior to disassembly of NS03B, a test was conducted on NS04B and a leakage of 4.16 SCFH was measured, which was well within the Technical Specification requirements.

Maintenance repair on NS03B involved straightening the stem, which was 27 mills out of alignment, and lapping both the main seat and the pilot valve seat. However, the seating surfaces did not appear to be damaged or indicate uneven wear. The valves were reassembled and cycled to obtain proper closure time. NS03B was then retested and exhibited negligible leakage.

Summarizing the test results, the indicated leak rates were as follows:

NS03A - <0.1 SCFH	NS03B - <0.1 SCFH
NS04A - =2.1 SCFH	NS04B - =4.2 SCFH

All of the above values satisfy the Technical Specification leak rate criteria of less than 9.95 SCFH at 20 psig test pressure.

Main Steam Isolation Valve NS03B will be retested at the next planned cold shutdown; and in any event, no later than the next refueling outage (currently planned for April 1972).

Twenty-five copies of this letter are enclosed.

Very truly yours,



Ivan R. Finfrock, Jr.
Manager, Nuclear Generating Stations

IRF/pk

cc: Mr. J. P. O'Reilly, Director
Division of Compliance, Region I