

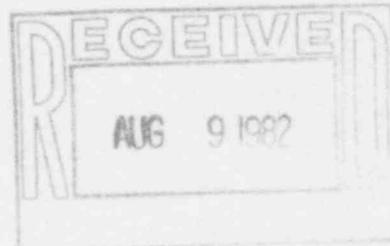
Nebraska Public Power District

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

CNSS820444

August 5, 1982

Mr. John T. Collins, Regional Administrator
U.S. Nuclear Regulatory Commission
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 determined during leak rate testing. A licensee event report form is also attached.

Report No.: 50-298-82-15
Report Date: August 5, 1982
Occurrence Date: July 6, 1982
Facility: Cooper Nuclear Station
Brownville, Nebraska 68321

During the Spring 1982 Refueling Outage all primary containment double "O" ring seals, testable expansion bellows, electrical penetrations, and testable isolation valves were tested in accordance with Technical Specifications Section 4.7.A.2.f and Tables 3.7.2 through 3.7.4. This report describes a condition which may have resulted in failure to meet the limiting condition for operation established in Section 3.7.A.2 of the Technical Specifications. There were a total of 47 Type "B" penetrations and 46 Type "C" penetrations tested. There were seven Type "C" penetrations that were found to be leaking above established limits which necessitated repair and retest.

Leak rate limits for each penetration are arbitrary limits established from the preoperational local leak rate test results. No electrical penetrations, double "O" ring seals, or testable bellows were leaking excessively. Listed below is a summary of each primary containment penetration which was repaired due to a high leakage rate.

IE 22

Mr. John T. Collins
August 5, 1982
Page 2.

X-10

RCIC Turbine Steam Supply Line, RCIC-MO-15 (inboard isolation valve) and RCIC-MO-16 (outboard isolation valve)

Initial leakage was found to be 17.79 cfh. The established limit is 2.0 scfh. RCIC-MO-15 was disassembled and the gate was lapped. After repair, the leakage was reduced to 1.87 cfh. RCIC-MO-15 and MO-16 are Anchor 3" gate valves with Limitorque motor operators.

X-14

RWCU, Inlet to RWCU System, RWCU-MO-15 (supply inboard isolation) and RWCU-MO-18 (supply outboard isolation)

Initial leakage was found to be 75.38 cfh. The established limit is 2.0 scfh. RWCU-MO-15 was removed and replaced with a new valve identical to the original. After the new valve was installed, the leakage was .99 scfh. RWCU-MO-15 and MO-18 are Anchor 6" gate valves.

X-210B & 211B

RHR to Suppression Pool, RHR-MO-34B (suppression pool cooling inboard isolation valve) RHR-MO-38B (suppression pool inboard spray isolation valve) and RHR-MO-39B (suppression pool cooling and spray outboard isolation valve)

Initial leakage was found to be 126.12 cfh. The established limit is 8.0 scfh. RHR-MO-34B was disassembled, the seat was lapped, the disc seating surface was cut down on a lathe, and a new bonnet gasket installed. RHR-MO-38B was disassembled, the seat and plug were cleaned, and a new bonnet gasket installed. RHR-MO-39B was disassembled, the seat was lapped, and a new bonnet gasket installed. After repairing these valves, the leakage was 13.0 cfh. Even though the leakage was above the established limit, further repair was not initiated because of the safety margin in the established limits. RHR-MO-34B is an Anchor 18" globe valve, RHR-MO-38B is an Anchor 6" globe valve, and RHR-MO-39B is an Anchor 18" gate valve.

X-212

RCIC Turbine Exhaust to the Suppression Chamber, RCIC-15CV and RCIC-37

Mr. John T. Collins
August 5, 1982
Page 3.

Initial leakage was found to be 9.87 cfh. The established limit is 1.0 scfh. RCIC-15CV was disassembled, the seat was lapped, the disc was cleaned, and a new gasket was installed. RCIC-37 was disassembled, the seat and disc were cleaned, and a new bonnet gasket was installed. After repairs, the leakage was reduced to 2.47 cfh. Even though this value was above the established limit, further repair was not initiated because of the safety margin in the established limit. RCIC-15CV is an Anchor 8" check valve and RCIC-37 is an Anchor 8" globe valve.

X-214

HPCI Turbine Exhaust to the Suppression Chamber, HPCI-15CV and HPCI-44

Initial leakage was found to be 10.11 cfh. The established limit is 2.0 scfh. HPCI-15CV was disassembled and the disc and seat were lapped. After repair, the leakage was 2.89 scfh. Even though the leakage was above the established limit, further repair was not initiated because of the safety margin in the established limits. HPCI-15CV is an Anchor 20" check valve.

X-220

Primary Containment Purge and Vent Exhaust from Suppression Chamber, PC-MO-230 (inboard isolation valve), PC-AO-245 (outboard isolation valve), PC-MO-305 (inboard isolation bypass), and ACAD-1308MV (ACAD torus vent)

The initial leakage was too rapid to determine an initial leak rate. The established limit is 5.0 scfh. PC-AO-245 was disassembled and the rubber seating ring replaced. After repair, the leakage was 2.84 scfh. PC-MO-230 and PC-MO-305 were not repaired or adjusted. Therefore, primary containment would have been maintained by the inboard isolation valves. PC-AO-245 is an Allis-Chalmers 24" butterfly valve.

X-226

HPCI Pump Suction from the Suppression Chamber, HPCI-MO-58

Initial leakage was found to be 15.96 cfh. The established limit is 3.0 scfh. HPCI-MO-58 was disassembled, the seat and gate were lapped, and a new bonnet gasket installed. After repair, the leakage was 3.755 cfh. Even though the leakage was above the established limit, further repair was not initiated because of the safety margin in the established limits. HPCI-MO-58 is an Anchor 16" gate valve.

Mr. John T. Collins
August 5, 1982
Page 4.

A review was conducted of the local leak rate test from 1980 through 1982 to determine penetrations that repetitively exceeded established limits each year. Due to this review, additional corrective actions are being done on the following penetrations.

X-210B & 211B

New valves have been on order since November 1981 for RHR-MO-34B and RHR-MO-39B. A new seat and disc have been on order since November 1981 for RHR-MO-38B.

X-212

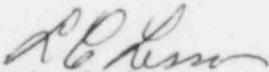
A new valve is in the warehouse for RCIC-37. Engineering is conducting an evaluation on the best location for the new valve because of the very close location of the existing valve and the ceiling which makes this valve very difficult to repair. A new valve has been on order since November 1981 for RCIC-15CV.

X-220

Engineering is exploring the possibility of developing a procedure to verify PC-A0-245 is seating properly.

In accordance with Section 4.7.A.2.a of the Technical Specifications, the total leakage rate shall not exceed the equivalent of 0.6 La (189 scfh) of the primary containment volume per 24 hours at 58 psig. All valves were tested at ≥ 58 psig with the exception of the MSIV's as prescribed in Section 4.7.A.2.f. Pressure decay or water collection was used to determine the leakage. The total as-found leakage was approximately 1640 cfh. The actual leakage would have been approximately 222 cfh because in 5 of the 7 penetrations that required repair, only one valve had to be repaired to decrease the leakage. Therefore, the other isolation valve in each of the penetrations would have maintained the primary containment. After repair of the leaking valves, the leak rate was reduced to less than 108 scfh.

Sincerely,



L. C. Lessor
Station Superintendent
Cooper Nuclear Station

LCL:cg
Attach.