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UNITED STATES
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JERSEY CENTRAL POWER AND LIGHT COMPANY - OYSTER CREEK, DOCKET NO. 50-219

A special inspection was conducted on July 23, 1969, to review the results of recent leak rate tests that were performed on the main steam line isolation valves and of the reactor building at the subject facility. R. T. Carlson, Senior Reactor Inspector, and D. Caphton, assigned inspector, both of Region I (Newark) accompanied me on this inspection. Substantive results of the inspection were as follows:

A. Main Steam Line Isolation Valves (MSIV) - Based on discussions between DRL and the licensee, a leak rate of 11.5 cubic feet per hour (cfh) at a test pressure of 20 psig was established as the maximum permissible leak rate for each of the four valves. Testing performed on the north loop inboard valve (NS03A) indicated a leak rate in excess of 150 cfh (full scale indication of monitoring rotometer). Following subsequent machining and lapping of the mating sealing surfaces within the valve, a leak rate test was performed using a more sensitive leak rate detector (Rockwell gas flow meter). The results of this test indicated a leak rate of approximately 30 cfh. Additional lapping operations were performed and a subsequent leak rate test that was conducted on July 18, 1969, indicated zero leakage. A second leak rate test of this valve was performed on July 18, 1969. This test also indicated zero leakage.

The leak rate through the south loop inboard valve (NS03B) was checked on July 18, 1969, using the more sensitive monitoring technique. This test indicated a leak rate of 10 to 20 cfh. This valve was then lapped and a subsequent leak rate test performed on July 22, 1969, indicated zero leakage.

In order to verify the acceptability of the two outboard valves, additional tests were performed during the morning shift on July 23, 1969. The results of these tests revealed that north loop outboard valve (NS04A) had a leak rate of 1.7 cfh versus a previously determined leak rate of 3.8 cfh on March 31, 1969, and the south loop outboard valve (NS04B) had a leak rate of 0.8 cfh versus a previously determined leak rate of 0.7 cfh on June 12, 1969.

All leak rate testing was performed following normal valve closure operations.

Jersey Central has accepted the results of these tests.

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B. Reactor Building Leak Rate - An acceptance criterion for the reactor building leak rate test was described on page 44 of Amendment No. 52 and in Technical Specification 4.5 J.2. The criterion requires that 0.25 inches of water vacuum must be achieved in the reactor building with a standby gas treatment air flow of approximately 2300 cubic feet per minute (cfm).

Records of the reactor building leak rate tests that were performed on July 1, 2 and 3, 1969, indicated that these requirements were met for the following test conditions:

1. Both railroad air lock doors closed.

2. Wind velocities of 3 to 18 miles per hour.

3. Individual operation of both reactor building exhaust fans.

During these tests the inner and outer railroad air lock doors were jacked closed to provide a better seal. This temporary jacking consisted of a floor-mounted bracket against which the bottom edge of the door was wedged closed.

A single test was performed with the inner air lock doors open and the outer doors jacked closed. The results of this test provided a leak rate indication of 0.25 inches of water vacuum. These test results were documented in the test report; however, discussions with Jersey Central personnel and GE (Mr. Hess) revealed that two or three additional tests were also performed with the inner door open, but these results were not documented because the test results failed to meet the requirements of the Technical Specifications.

Both the licensee and GE stated that the railroad air lock doors will be modified to achieve greater sealing capability. The modification will consist of the permanent installation of cam style latches that will force the top, bottom and center seam of the doors against a sealing gasket. Mr. Hess stated that the modification was in progress. However, because of labor difficulties, he could not forecast when the work would be completed.

In response to questioning, Mr. Hess stated that additional tests will be performed after the modification is completed to verify the leak tightness of the door seals. Mr. Hess also stated that additional testing will also be performed at higher wind velocities as required by Technical Specification 4.5 J.1.

Mr. T. McCluskey stated that Jersey Central has accepted the results of the reactor building leak rate test with the following

exceptions:

1. Testing at wind velocities in excess of 20 mph will be required.

2. Testing with various combinations of railroad air lock doors open will be required after the planned modification is completed.

C. Incidental Information - In response to questioning, Mr. Hess stated that the mounting flanges of the Dresser and Crosby relief valves are not interchangeable. An adaptor will be required for the installation of Dresser valves at Oyster Creek. Mr. Hess also stated that arrangements have not been made to obtain these adaptors.

In response to additional questioning, Mr. Hess stated that the five spare relief valves were shipped to Crosby for nondestructive testing and that the fifteen Crosby and one Dresser valves had not been removed from the main steam system.

Original Signed By
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