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MSIV LEAKAGE CONTROL SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.1.4 Two ~~independent~~ MSIV leakage control system (LCS) subsystems shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

a. With one MSIV leakage control system subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 30 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

b. (insert from following page)

SURVEILLANCE REQUIREMENTS

4.6.1.4 Each MSIV leakage control system subsystem shall be demonstrated OPERABLE:

a. At least once per 31 days by:

1. Starting the blower(s) from the control room and operating the blower(s) for at least 15 minutes.

(insert from following page)

2. ~~Energizing the heaters and verifying the current to be ± 10% of rated current for each heater.~~

b. ~~During each COLD SHUTDOWN, if not performed within the previous 92 days, by cycling each depressurizing valve and steam isolation valve through at least one complete cycle of full travel.~~

b. c. At least once per 18 months by a system functional test of each MSIV Leakage Control System Subsystem.

~~1. Performance of a functional test which includes simulated actuation of the subsystem throughout its operating sequence, and verifying that each automatic valve actuates to its correct position and the blower starts.~~

~~2. Verifying that the blower develops at least the -17" H_2O at the blower suction, with 30 cfm of dilution flow.~~

c. d. By verifying the flow, pressure and temperature instrumentation to be OPERABLE by performance of a:

1. CHANNEL FUNCTION TEST at least once per 31 days, and
2. CHANNEL CALIBRATION at least once per 18 months.

Insert to Page 3/4 6-7, MSIV Leakage Control System

ACTION

b. With two MSIV leakage control system subsystems inoperable, restore one MSIV leakage control system to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.4....

a.

1.

2. Verifying electrical continuity of each inboard MSIV leakage control system subsystem heater element circuitry.

MSIV LEAKAGE CONTROL SYSTEM (Continued)

Design specifications require the system to accommodate a leak rate of five times the Technical Specification leakage allowed for the MSIVs while maintaining a negative pressure downstream of the MSIVs. The allowed leakage value per each valve is 11.5 scfm, or a total of 230 scfh (3.8 scfm).[a] When corrected for worst case pressure, temperature and humidity expected to be seen during surveillance testing conditions, the flow would never exceed an indicated value (uncorrected reading from local flow instrumentation) of 5 cfm. The 30 cfm acceptance criterion provides significant margin to this design basis requirement and provides a benchmark for evaluating long term blower performance. The Technical Specification limit for pressure of -17" H_2O W.C. was also established based on a benchmark of the installed system performance capability. This -17" H_2O W.C. provides assurance that the negative pressure criterion can be met.

3/4.6.1.5 PRIMARY CONTAINMENT STRUCTURAL INTEGRITY

This limitation ensures that the structural integrity of the containment steel vessel will be maintained comparable to the original design standards for the life of the unit. Structural integrity is required to ensure that the containment will withstand the maximum pressure of 34.7 psig in the event of a LOCA. A visual inspection in conjunction with Type A leakage tests is sufficient to demonstrate this capability.

3/4.6.1.6 DRYWELL AND SUPPRESSION CHAMBER INTERNAL PRESSURE

The limitations on drywell and suppression chamber internal pressure ensure that the containment peak pressure of 34.7 psig does not exceed the design pressure of 45 psig during LOCA conditions or that the external pressure differential does not exceed the design maximum external pressure differential of 2 psid. The limit of 1.75 psig for initial positive containment pressure will limit the total pressure to 34.7 psig which is less than the design pressure and is consistent with the safety analysis.

3/4.6.1.7 DRYWELL AVERAGE AIR TEMPERATURE

The limitation on drywell average air temperature ensures that the containment peak air temperature does not exceed the design temperature of 340°F during LOCA conditions and is consistent with the safety analysis.

3/4.6.1.8 DRYWELL AND SUPPRESSION CHAMBER PURGE SYSTEM

The 24-inch and 30-inch drywell and suppression chamber purge supply and exhaust isolation valves are required to be sealed closed during plant operation since these valves have not been demonstrated capable of closing during a LOCA or steam line break accident. Maintaining these valves sealed closed during plant operations ensures that excessive quantities of radioactive materials will not be released via the purge system. To provide assurance that the 24-inch and 30-inch valves cannot be inadvertently opened, they are sealed closed in accordance with Standard Review Plan 6.2.4, which includes mechanical devices to seal or lock the valve closed or prevent power from being supplied to the valve operator.

(a) Letter, GO2-75-238, dated August 18, 1975, NO Strand (SS) to OD Parr (NRC), "Response to Request for Information Main Steam Isolation Valve Leakage Control System"

Insert A to Bases 3/4.6.1.4, page 3/4 6-2

The 30 $\pm$ 6 cfm acceptance criterion provides adequate margin to the value necessary to accommodate this leakage rate while maintaining adequate system vacuum. Also, the 30 $\pm$ 6 cfm acceptance criterion, given worst case flow, temperature and humidity values, provides the necessary blower fan cooling to assure proper operation of the MSIVLCS and ensure that the process stream delivered by the MSIVLCS is within the capabilities of the SGT. Further, it provides a benchmark for evaluating long term blower performance.

Insert B to Bases 3/4.6.1.4, page B 3/4 6-2

The system functional test, Surveillance 4.6.1.4.b of each subsystem is performed to ensure that the MSIVLCS will operate through its operating sequence. This includes verifying that the automatic positioning of the valves and the operation of each interlock and timer are correct, that the blowers start and develop the required flow rate and the necessary vacuum (at least -17" H_2O at the blower suction, with 30 $\pm$ 6 cfm dilution flow), and that the upstream heaters control temperature adequately.

STATE OF WASHINGTON)
)
COUNTY OF BENTON)

Subject: Request for Amend to TS 3/4.6.1.4
MSIV Leakage Control System

I. J. V. PARRISH, being duly sworn, subscribe to and say that I am the Assistant Managing Director, Operations for the WASHINGTON PUBLIC POWER SUPPLY SYSTEM, the applicant herein; that I have the full authority to execute this oath; that I have reviewed the foregoing; and that to the best of my knowledge, information, and belief the statements made in it are true.

DATE 6 December, 1993

J. V. Parrish, Assistant Managing Director
Operations

On this date personally appeared before me J. V. PARRISH, to me known to be the individual who executed the foregoing instrument, and acknowledged that he signed the same as his free act and deed for the uses and purposes herein mentioned.

GIVEN under my hand and seal this 6th day of December 1993.

Traci M. Hardy
Notary Public in and for the
STATE OF WASHINGTON

Residing at Kennewick, WA

My Commission Expires 8/9/95

County of Benton