No Change. Provided for Continuity only.

CONTAINMENT BUILDING VENTILATION AND PURGE SYSTEMS

LIMITING CONDITION FOR OPERATION

3.6.1.8 The primary containment building ventilation 36-inch supply (1VR001A, 1VR001B) and 36-inch exhaust (1VQ004A, 1VQ004B) isolation valves and the containment purge 12-inch supply (1VR006A, 1VR006B) and 12-inch exhaust (1VR007A, 1VR007B) isolation valves shall be OPERABLE, and

a. Primary containment building ventilation 36-inch supply and exhaust isolation valve(s) may be open for containment ventilation system operation* with such operation limited to ≤500 hours# per year for reducing airborne activity and atmosphere control for personnel safety.

b. Primary containment building ventilation 36-inch supply and exhaust isolation valves shall be closed when the 12-inch containment purge isolation valve(s) are open. The 12-inch containment purge valves may be opened for reducing airborne activity and for atmospheric control to support containment access requirements to perform surveillances in accordance with these Technical Specifications.## When the 12-inch containment purge system is not required to support these access needs, the 12-inch valves shall be closed.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

a. With the containment building ventilation 36-inch supply and/or exhaust isolation valve(s) inoperable or open for more than 500 hours per year for containment ventilation system operation, within 4 hours close the open 36-inch isolation valve(s) or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

b. With containment purge 12-inch supply and/or exhaust isolation valve(s) inoperable, within 4 hours close the inoperable valve(s) or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

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*Containment ventilation system operation shall be defined as any time 36-inch supply and/or exhaust isolation valves are open except when opened for inservice testing performed pursuant to Specification 4.0.5.

#Applicable for the period from initial fuel load to 3 months after completion of the first refueling outage, otherwise a 250 hours per 365 days limit shall be imposed.

##The 12-inch containment purge valves may be maintained open when required to support multiple daily access to the containment to perform required surveillances.

CONTAINMENT SYSTEMS

CONTAINMENT BUILDING VENTILATION AND PURGE SYSTEMS

LIMITING CONDITIONS FOR OPERATION (Continued)

3.6.1.8 ACTION (Continued)

c. With the containment purge supply and/or exhaust isolation valves with resilient material seals having a measured leakage rate exceeding the limit of Surveillance Requirement 4.6.1.8.3, restore the inoperable valves to OPERABLE status within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours or in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.8.1 The cumulative time that the 36-inch supply and exhaust containment ventilation isolation valves have been open during the past 365 days for containment ventilation system operation shall be determined at least once per 7 days.

4.6.1.8.2 Deleted

18 months and within 92 days after opening the associated valve(s),

4.6.1.8.3 At least once per ~~92 days~~ each 36-inch supply and exhaust containment ventilation isolation valve (with resilient material seals) shall be demonstrated OPERABLE by verifying that the measured rate is $\leq$0.01 La when pressurized to Pa.

4.6.1.8.4 Prior to opening the containment building ventilation system 36-inch supply and/or exhaust valve(s), verify that each containment purge 12-inch supply and exhaust isolation valve is closed.

4.6.1.8.5 Prior to opening the 12-inch valve(s), verify that the 36-inch containment building ventilation supply exhaust isolation valves are closed. Once the requirement for reducing airborne activity and atmospheric control is completed, the 12-inch valves shall be closed.

3/4.6.1.8 CONTAINMENT BUILDING VENTILATION AND PURGE SYSTEMS

The 36-inch containment purge supply and exhaust isolation valves have permanently installed blocking devices to restrict their opening to 50° during plant OPERATIONAL CONDITIONS 1, 2, and 3, since these valves have not been demonstrated capable of closing from the full open position during an accident. Maintaining these valves blocked during plant operations ensures that excessive quantities of radioactive materials will not be released via the containment purge system. To provide assurance that the 36-inch valves cannot be inadvertently fully opened, they are blocked in accordance with staff's recommendations accepted in SSER 5, paragraph 6.2.4.1.

The use of the containment purge lines is restricted to the 12-inch purge supply and exhaust isolation valves since, unlike the 36-inch valves, the 12-inch valves close during accident conditions and therefore the site boundary dose guidelines of 10 CFR Part 100 would not be exceeded in the event of an accident during purging operations. The design of the 12-inch purge supply and exhaust isolation valves meets the requirements of Branch Technical Position CSB 6-4, "Containment Purging During Normal Plant Operations."

The use of the 12-inch containment purge exhaust and supply lines shall be in accordance with the "Clinton Power Station Report on Containment Purge Operational Data Gathering and Evaluation Program and Proposed Containment Purge Criteria" provided in Illinois Power (IP) letter U-601410, dated April 4, 1989. Section 6 of the report provides the criteria for governing operation of the containment building ventilation (36-inch) and the continuous purge (12-inch) systems. The criteria balance ALARA dose to the worker with protection of the health and safety of the public.

Since continuous operation of the 12-inch containment purge system has been shown to be required to support access to the containment to perform Technical Specification surveillances during normal conditions while in OPERATIONAL CONDITIONS 1, 2 and 3, continuous operation of the 12-inch system is allowed except while venting the drywell for pressure control or while operating the 36-inch system.

In addition to 10CFR50 Appendix J testing requirements, Continuous containment purge using the 36-inch containment building ventilation system is limited to only OPERATIONAL CONDITIONS 4 and 5. Intermittent use of the 36-inch system during OPERATIONAL CONDITIONS 1, 2, and 3 is permitted only for the purpose of reducing airborne activity levels, or containment pressure, and atmosphere control (excluding temperature and humidity), and shall be limited to the time limits identified in Specification 3.6.1.8.

Leakage integrity tests, performed every 18 months, with a ~~maximum~~ allowable leakage rate for the 36-inch supply and exhaust isolation valves will provide ~~early~~ indication of resilient material seal degradation and will allow the opportunity for repair before gross leakage failures develop. The 0.60 L_a leaking limit should not be exceeded when the additional separate

Since stroking the valves will provide a mechanism for seal degradation, leak testing will be performed within 92 days following the opening of a 36-inch supply or exhaust isolation valve.

No change. Provided for continuity only.

BASES

3/4.6.1.8 CONTAINMENT BUILDING VENTILATION AND PURGE SYSTEMS (Continued)

leak rate determined by the leakage integrity tests of these valves is added to the previously determined total for all valves and penetrations subject to Type B and C tests.

The limitations placed on the use of the containment building ventilation system during OPERATIONAL CONDITIONS 1, 2, and 3 are appropriate to minimize the potential release of radioactive gases to the environment following a LOCA during normal plant operation. The operation of the 36-inch system is consistent with the requirements of Branch Technical Position CSB 6-4, "Containment Purging During Normal Plant Operations."

3/4.6.2 DRYWELL

3/4.6.2.1 DRYWELL INTEGRITY

Drywell integrity ensures that the steam released for the full spectrum of drywell pipe breaks is condensed inside the primary containment either by the suppression pool or by containment spray. By utilizing the suppression pool as a heat sink, energy released to the containment is minimized and the severity of the transient is reduced.

3/4.6.2.2 DRYWELL BYPASS LEAKAGE

The limitation on drywell bypass leakage rate ensures that the maximum leakage which could bypass the suppression pool during an accident would not result in the containment exceeding its design pressure of 15.0 psig. The integrated drywell leakage value is limited to 10% of the design drywell leakage rate.

The limiting case accident is a very small reactor coolant system break which will not automatically result in a reactor depressurization. The long term differential pressure created between the drywell and containment will result in a significant pressure buildup in the containment due to this bypass leakage.

3/4.6.2.3 DRYWELL AIR LOCKS

The limitations on closure for the drywell air locks are required to meet the restrictions on DRYWELL INTEGRITY and the drywell leakage rate given in Specifications 3.6.2.1 and 3.6.2.2. The specification makes allowances for the fact that there may be long periods of time when the air locks will be in a closed and secured position during reactor operation. Only one closed door in each air lock is required to maintain the integrity of the drywell.

SURVEILLANCE REQUIREMENTS (continued)

	SURVEILLANCE	FREQUENCY
SR 3.6.1.3.5	----------NOTES---------- 1. Only required to be met in MODES 1, 2, and 3. 2. Results shall be evaluated against acceptance criteria of SR 3.6.1.1.1 in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions. ---------- Perform leakage rate testing for each primary containment purge valve with resilient seals.	---NOTE--- SR 3.0.2 is not applicable ---------- In accordance with 10CFR50, Appendix J, as modified by approved exemptions ~~184 days~~ AND Once within 92 days after opening the valve
SR 3.6.1.3.6	Verify each automatic PCIV actuates to the isolation position on an actual or simulated isolation signal.	18 months

(continued)

No change. Provided for continuity only.

BASES

ACTIONS

B.1 (continued)

that meet this criterion are a closed and de-activated automatic valve, a closed manual valve, a blind flange, and a check valve with flow through the valve secured. The 1 hour Completion Time is consistent with the ACTIONS of LCO 3.6.1.1.

C.1

With the secondary containment bypass leakage rate, hydrostatic leakage rate, or MSIV leakage rate not within limit, the assumptions of the safety analysis may not be met. Therefore, the leakage must be restored to within limit within 4 hours. Restoration can be accomplished by isolating the penetration that caused the limit to be exceeded by use of one closed and de-activated automatic valve, closed manual valve, or blind flange. When a penetration is isolated, the leakage rate for the isolation penetration is assumed to be the actual pathway leakage through the isolation device. If two isolation devices are used to isolate the penetration, the leakage rate is assumed to be the lesser actual pathway leakage of the two devices. The 4 hour Completion Time is reasonable considering the time required to restore the leakage by isolating the penetration and the relative importance of secondary containment bypass leakage to the overall containment function.

D.1, D.2, and D.3

In the event one or more containment purge valves are not within the purge valve leakage limits, purge valve leakage must be restored to within limits or the affected penetration must be isolated. The method of isolation must be by the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated automatic valve, closed manual valve, and blind flange. If a purge valve with resilient seals is utilized to satisfy Required Action D.1, it must have been demonstrated to meet the leakage requirements of SR 3.6.1.3.5. The specified Completion Time is reasonable, considering that one containment purge valve remains closed

(continued)

BASES

ACTIONS

D.1, D.2, and D.3 (continued)

(refer to the requirements of SR 3.6.1.3.1; if this requirement is not met, entry into Condition A and B, as appropriate, would also be required), so that a gross breach of containment does not exist.

In accordance with Required Action D.2, this penetration flow path must be verified to be isolated on a periodic basis. The periodic verification is necessary to ensure that containment penetrations required to be isolated following an accident, which are no longer capable of being automatically isolated, will be isolated should an event occur. This Required Action does not require any testing or valve manipulation. Rather, it involves verification that those isolation devices outside containment and potentially capable of being mispositioned are in the correct position. For the isolation devices inside containment, the time period specified as "prior to entering MODE 2 or 3, from MODE 4 if not performed within the previous 92 days" is based on engineering judgment and is considered reasonable in view of administrative controls that will ensure that isolation device misalignment is an unlikely possibility.

required by 10CFR50, Appendix J (Ref. 6), as modified by approved exemptions.

For a containment purge valve with a resilient seal that is isolated in accordance with Required Action D.1, SR 3.6.1.3.5 must be performed at least once every 92 days. This provides assurance that degradation of the resilient seal is detected and confirms that the leakage rate of the containment purge valve does not increase during the time the penetration is isolated. The normal Frequency for SR 3.6.1.3.5 is ~~184 days~~. Since more reliance is placed on a single valve while in this Condition, it is prudent to perform the SR more often. Therefore, a Frequency of once per 92 days was chosen and has been shown acceptable based on operating experience.

E.1 and E.2

If any Required Action and associated Completion Time cannot be met in MODE 1, 2, or 3, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours and to MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full

(continued)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.1.3.3

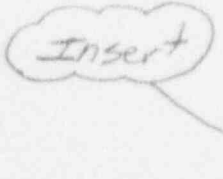
This SR verifies that each primary containment manual isolation valve and blind flange located inside primary containment, drywell, or steam tunnel, and required to be closed during accident conditions, is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside the primary containment boundary is within design limits. For devices inside primary containment, drywell, and steam tunnel, the Frequency of "prior to entering MODE 2 or 3 from MODE 4, if not performed within the previous 92 days", is appropriate since these devices are operated under administrative controls and the probability of their misalignment is low.

Two Notes are added to this SR. The first Note allows valves and blind flanges located in high radiation areas to be verified by use of administrative controls. Allowing verification by administrative controls is considered acceptable since access to these areas is typically restricted during MODES 1, 2, and 3. Therefore, the probability of misalignment of these devices, once they have been verified to be in their proper position, is low. A second Note is included to clarify that PCIVs that are open under administrative controls are not required to meet the SR during the time that the PCIVs are open.

SR 3.6.1.3.4

Verifying the isolation time of each power operated and each automatic PCIV is within limits is required to demonstrate OPERABILITY. The isolation time test ensures that the valve will isolate in a time period assumed in the safety analysis. The isolation time and Frequency of this SR are in accordance with the Inservice Testing Program.

SR 3.6.1.3.5



For primary containment purge valves with resilient seals, additional leakage rate testing beyond the test requirements of 10 CFR 50, Appendix J (Ref. 6), is required to ensure OPERABILITY. ~~Operating experience has demonstrated that~~

(continued)

Insert to Bases for SR 3.6.1.3.5 (page B 3.6-23)

Since cycling these valves may introduce additional seal degradation (beyond that which occurs to a valve that has not been opened), this SR must be performed within 92 days after opening the valve. However, operating experience has demonstrated that if a valve with a resilient seal is not stroked during an operating cycle, significant increased leakage through the valve is not observed. Based on this observation, a normal Frequency in accordance with 10CFR50, Appendix J (Ref. 6), as modified by approved exemptions, was established. In accordance with 10CFR50, Appendix J, SR 3.0.2 (which allows Frequency extensions) does not apply.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.6.1.3.5 (continued)

~~this type of seal has the potential to degrade in a shorter time period than do other seal types. Based on this observation, and the importance of maintaining this penetration leak tight (due to the direct path between primary containment and the environment), a Frequency of 184 days was established. Additionally, this SR must be performed within 92 days after opening the valve. The 92 day Frequency was chosen recognizing that cycling the valve could introduce additional seal degradation (beyond that which occurs to a valve that has not been opened). Thus, decreasing the interval (from 184 days) is a prudent measure after a valve has been opened.~~

The SR is modified by a Note stating that the primary containment purge valves are only required to meet leakage rate testing requirements in MODES 1, 2, and 3. If a LOCA inside primary containment occurs in these MODES, purge valve leakage must be minimized to ensure offsite radiological release is within limits. At other times when the purge valves are required to be capable of closing (e.g., during handling of irradiated fuel), pressurization concerns are not present and the purge valves are not required to meet any specific leakage criteria. A second Note is added to this SR requiring the results to be evaluated against the acceptance criteria of SR 3.6.1.1.1. This ensures that primary containment purge valve leakage is properly accounted for in determining the overall primary containment leakage rate.

SR 3.6.1.3.6

Automatic PCIVs close on a primary containment isolation signal to prevent leakage of radioactive material from primary containment following a DBA. This SR ensures that each automatic PCIV will actuate to its isolation position on a primary containment isolation signal. The LOGIC SYSTEM FUNCTIONAL TEST in SR 3.3.6.1.7 overlaps this SR to provide complete testing of the safety function. The 18 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass this Surveillance when performed at the 18 month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

(continued)