 50-280/281

Component Cooling Water (CC) System Functions

Safety Related Functions

1. Provide containment isolation capability such that containment leakage from lines penetrating containment is sufficiently low following a DBA to maintain offsite and Control Room dose levels below regulatory limits.
2. Provide instrumentation to assess plant conditions for Reg. Guide 1.97 Category 1 variables

NSQ Functions

1. Transfer heat from the residual heat removal system so that the units can be brought to cold shutdown to meet the requirements of Appendix R.
2. Provide heat transfer from the sampling System to the service water system to cool post-accident samples.
3. Provide instrumentation to access plant conditions for Reg. Guide 1.97 Category 2 and 3 variables
4. Provide adequate heat transfer from hot containment pipe penetrations to the service water system to ensure long term integrity of the concrete surrounding the piping penetrations.

A001

A001 per NJ Eliason 9/1

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Component Cooling Water (CC) System Functions

NSQ Functions (cont.)

5. Provide computer inputs to satisfy emergency response facility requirements.
6. Transfer heat from the fuel pool cooling (FC) system such that the FC system can provide adequate spent fuel pool cooling.
7. Provide heat transfer from the RCP thermal barrier to prevent failure of the RCP seals in the event the charging system seal injection is lost.
8. Attenuate gamma and neutron radiation from fission and fission product decay from the reactor vessel in the neutron shield tank.

Nonsafety-related Functions

1. Provide heat transfer form the RCP bearing lube oil coolers and stator coolers to the service water (SW) system
2. Provide heat transfer from heat exchangers in the CH system to the SW system
3. Provide heat transfer from the primary drains transfer tank cooler in the primary vents and drains system to the SW system
4. Provide heat transfer from heat exchangers and pump seals in the boron recovery system to the SW system

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Component Cooling Water (CC) System Functions

Nonsafety-Related Functions (cont.)

5. Provide heat transfer from heat exchangers in the sampling system to the SW system
6. Provide heat transfer from the compressor seals in the gaseous waste system to the SW system
7 Provide heat transfer from the blowdown system steam generator recirculation coolers to the SW system
8, Provide heat transfer from the primary shield wall and the primary shield penetrations to the SW system.
9. Provide heat transfer from the containment instrument air compressors in the instrument and service air system to the SW System
10. Provide heat transfer from the residual heat removal system to the SW System
11. Provide adequate heat transfer from the control rod drive mechanism (CRDM) shroud cooling coils and containment recirculation air coolers in the HR System to the SW System
12. The CC System neutron shield tank shall provide adequate structural support and stabilization for the reactor vessel.

Reclassification of Certain CC System Functions

The CC system function to remove heat via the FP cooler was classified as NSQ.

Basis

The Fuel Pool System function to provide cooling (decay heat removal) to the fuel pool is classified NSQ.

The CC System function to transfer heat from the CH system charging pump mechanical seals to ensure adequate operation of the charging pumps during plant operations was re-classified to nonsafety-related.

Basis

Engineering technical evaluations had concluded that the CC fluid to the charging pump mechanical seal coolers could be eliminated because the process fluid (CH/SI) would not exceed the maximum design temperature of the seals (including heat added from the pumps).

Reclassification of Certain CC System Functions (cont.)

The CC System function to transfer heat from the RCP thermal barrier to prevent failure of the RCP seals was re-classified to nonsafety-related

Basis

Seal injection via the CH pumps provides primary means for RCP seal cooling. A loss of offsite power is the only credible means of losing seal injection during a design basis event, but no seal failure is expected during the brief period required to power the emergency busses and restore seal injection. The only credible means of losing seal injection for an extended time is a station blackout or Appendix R event, both of which are classified as NSQ.

Reclassification of Certain CC System Functions

The CC System function to provide cooling water for the non-accident unit during an accident on the other unit to meet the requirements of the fuel pool cooling System to maintain fuel pool temperature was re-classified to NSQ

Basis

The Fuel Pool System function to provide cooling (decay heat removal) to the fuel pool is classified as NSQ.

The CC System function to provide cooling for the Residual Heat Removal System was re-classified to NSQ for Appendix R events and to nonsafety-related for non-fire-related events to correspond to the existing classification of the RH System.

Basis

Appendix R events are classified as NSQ

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