

#### 4.10 ECCS RELATED CORE LIMITS

**Applicability:** Applies to the periodic measurement during power operation of core parameters related to ECCS performance.

**Objective:** To assure that the limits of Section 3.10 are not being violated.

**Specification:**

A. Average Planar LHGR.

The APLHGR for each type of fuel as a function of average planar exposure shall be checked daily during reactor operation at greater than or equal to 25% rated thermal power.

B. Local LHGR.

The LHGR as a function of core height shall be checked daily during reactor operation at greater than or equal to 25% rated thermal power.

C. Minimum Critical Power Ratio (MCPR).

1. MCPR shall be checked daily during reactor operation at greater than or equal to 25% rated thermal power.
2. The MCPR operating limit shall be determined within 72 hours of completing scram time testing as required in Specification 4.2.C.

**Bases:**

The LHGR shall be checked daily to determine whether fuel burnup or control rod movement has caused changes in power distribution. Since changes due to burnup are slow, and only a few control rods are moved daily, a daily check of power distribution is adequate.

The minimum critical power ratio (MCPR) is unlikely to change significantly during steady state power operation so that 24 hours is an acceptable frequency for surveillance. In the event of a single pump trip, 24 hours surveillance interval remains acceptable because the accompanying power reduction is much larger than the change in MAPLHGR limits for four loop operation at the corresponding lower steady state power level as compared to five loop operation. The 24 hours frequency is also acceptable for the APRM status check since neutron monitoring system failures are infrequent and a downscale failure of either an APRM or LPRM initiates a control rod withdrawal block, thus precluding the possibility of a control rod withdrawal error.

Because the transient analysis takes credit for conservatism in the scram speed performance, it must be demonstrated that the specific scram speed distribution is consistent with that used in the transient analysis. Surveillance 4.10.C.2 determines the actual scram speed distribution which is compared to the assumed distribution. The