4A.4 IN-PLANT MEASUREMENT OF REACTOR COOLANT FLOW

The RCS flow will be measured during pre-core hot functional testing. This measurement will be used to predict the post-core load flow. Flow will be verified during post-core hot functional testing. The method for determining flow has already been outlined in Appendix 4A.2.1. The post-core load hot functional test results are then extrapolated to full power conditions by correcting for reactor coolant density changes.

During hot functional testing, the RCP case ΔP will be measured with a 0-150 psi Barton Model 227 ΔP gauge. The accuracy of this gauge is ± 0.5% FS. Measurements will also be made of steam generator ΔP and reactor vessel ΔP.

Should a change in plant conditions result in lower than specified flow, the safety analyses can be recalculated at the existing core burnup. To provide Technical Specifications which include flow as a variable would require unnecessary complexity. The effect of flow on the peak linear heat rate permitted by the LOCA analysis can be determined from Figure 5.1-13 of CENPD-106. This figure shows that a 14% flow increase results in only a 3% increase in allowable peak linear heat rate at beginning-of-life. The impact of changes in flow on this analysis is, therefore, minimal.