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Determination of Preliminary Plant Operation Logic for KALIMER

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Abstract

In the KALIMER design, once-through helical coil steam generators are used to generate superheat steam. The once-through steam generator has its unique operational characteristics and a preliminary scheme for plant operation temperature. The operation temperature scheme determines typical thermal behaviors of the main systems in the plant and is the starting point in setting up the plant operation logic. Control features in plant operation between PWR and LMR are discussed including several technical aspects that need to be considered in developing the plant operation logic. Using HSGSA-RE code, calculational results on the operation logic are obtained. Based on the results, a preliminary operation logic for KALIMER is proposed.