10.4.7A Condensate and Feedwater System

Depending on site specific data, equipment availability and utility requirements, alternative designs for the steam and power conversion system may be considered by the applicant for a COL. An optional design description for the CFS is provided in Section 10.4.7A. The alternative section outlines the changes to support the use of an optional condensate and feedwater system (CFS) design. Those areas of the U.S. EPR design not affected by selection of the optional CFS design are so identified within the alternative section. Only one of the design descriptions is used by the applicant within the site-specific FSAR.[1]

This section is the same as for the U.S. EPR (see Section 10.4.7).

10.4.7A.1 Design Bases

Same as the U.S. EPR (see Section 10.4.7.1).

10.4.7A.2 System Description

10.4.7A.2.1 General Description

Except for the following paragraphs, this section is the same as for the U.S. EPR (see Section 10.4.7.2.1).

A flow diagram of the CFS is provided in Figure 10.4.7A-1—Condensate and Feedwater System.

An external LP drain cooler is provided upstream of the No. 1 and No. 2 LP feedwater heaters and downstream of the deaerator makeup valve.

10.4.7A.2.2 Component Description

Except for the following paragraph, this section is the same as for the U.S. EPR (see Section 10.4.7.2.2).

Low Pressure Drain Coolers

The LP drain coolers are horizontal shell and tube design constructed of carbon steel with stainless steel tubes.

1. This information is made available to the reviewers and other readers to clarify this section. It is not to be considered part of the text.

10.4.7A.2.3 System Operation

Same as for the U.S. EPR (see Section 10.4.7.2.3).

10.4.7A.3 Safety Evaluation

Same as for the U.S. EPR (see Section 10.4.7.3).

10.4.7A.4 Inspection and Testing Requirements

Same as for the U.S. EPR (see Section 10.4.7.4).

10.4.7A.5 Instrumentation Requirements

Same as for the U.S. EPR (see Section 10.4.7.5).