
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

APR1400 Design Certification

Korea Electric Power Corporation / Korea Hydro & Nuclear Power Co., LTD

Docket No. 52-046

RAI No.: 479-8605
SRP Section: 09.02.01 - Station Service Water System
Application Section: 9.2.1
Date of RAI Issue: 05/10/2016

Question No. 09.02.01-8

In RAI 211-8236, Question 09.02.01-4, the staff requested the applicant to clarify whether the boundary isolation valves separating the nonsafety- from the safety-related portions of the ESWS are included for inservice testing and inspection.

In the response, the applicant states that

The boundary isolation valves are not included for in-service testing and inspection, because they are used only for system or component maintenance, in accordance with ASME ISTC code requirements.

The first part of the response that “the boundary isolation valves are not included for in-service testing and inspection” is inconsistent with the second part of the response that “they are used only for system or component maintenance, in accordance with ASME ISTC code requirements.”

The staff’s understanding from the response and other design certification applications is that the boundary isolation valves are tested in accordance with ASME OM Code Subsection ISTC, “Inservice Testing of Valves in Light-Water Reactor Nuclear Power Plant.” The applicant is requested to confirm and revise the response, and incorporate it into the DCD.

Response

The boundary isolation valves for the ESWS are hand-wheel operated manual valves to separate the non-safety/safety systems. These valves are SX-V1063 through V1066 to the blowdown header piping, SX-V3102 and V3104 to the plant discharge piping, and SX-V2071 through V2074 to the radiation monitoring system piping.

ASME ISTC-1200 (a) states that valves used only for operating convenience, such as vent, drain, instrument, and test valves that are not required to perform a specific function, are

excluded from in-service testing and inspection. Valves SX-V2071 through 2074, which are used for the instrumentation of radiation monitoring system fit into this category. Furthermore, ASME ISTC-1200 (c) describes an exemption from in-service testing and inspection for valves that are used only for system or component maintenance. Valves SX-V1063 through V1066 are utilized while valves SX-V043 and V044 are in maintenance. Analogously, valves SX-V3102 and V3104 are utilized while SX-V3101 and V3103 are in maintenance. Therefore, these boundary isolation valves are not included for in-service testing and inspection.

V1065 of Figure 9.2.1-1 in DCD Tier 2 will be corrected to V1066 as indicated in the attachment.

Impact on DCD

In DCD Tier 2, Figure 9.2.1-1 will be corrected as indicated in the attachment.

Impact on PRA

There is no impact on the PRA.

Impact on Technical Specifications

There is no impact on the Technical Specifications.

Impact on Technical/Topical/Environmental Reports

There is no impact on any Technical, Topical, or Environmental Report.

APR1400 DCD TIER 2

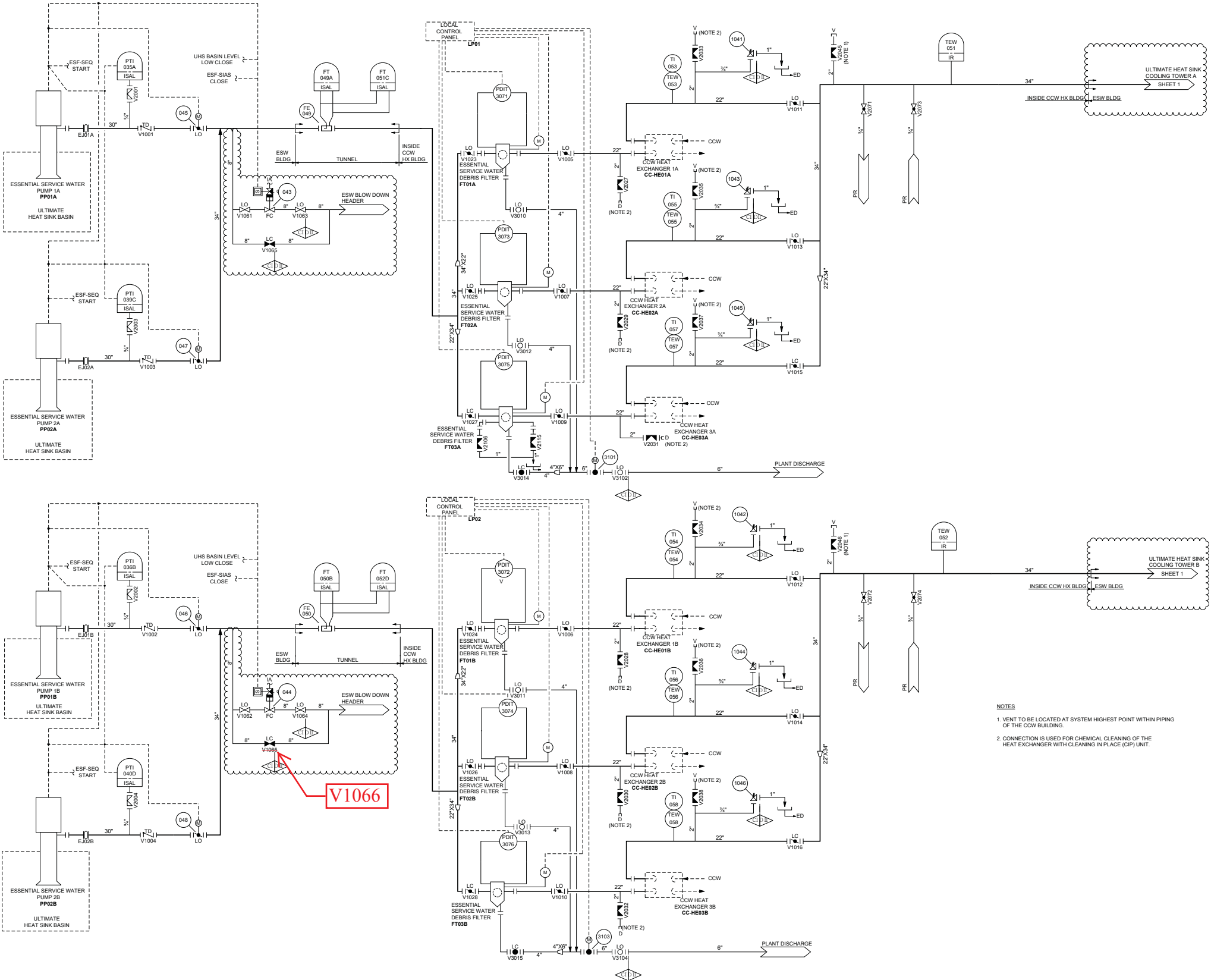


Figure 9.2.1-1 Essential Service Water System Flow Diagram