

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.: 82-8002
SRP Section: 10.04.07 – Condensate and Feedwater System Application Section
Application Section: 10.04.07
Date of RAI Issue: 07/16/2015

Question No. 10.04.07-1

DCD Tier 2, Section 10.4.7.6, "Water Hammer," states that "the COL applicant is to provide operating procedures in accordance with NUREG-0927 and a milestone schedule for implementation of the procedures (COL 10.4(6))." It also states that the procedures are to address:

- a. Prevention of rapid valve motion
- b. Introduction of voids into water-filled lines and components
- c. Proper filling and venting of water-filled lines and components
- d. Introduction of steam or heated water that can flash into water-filled lines and components
- e. Introduction of water into steam-filled lines or components
- f. Proper warmup of steam-filled lines
- g. Proper drainage of steam-filled lines
- h. Effects of valve alignments on line conditions

However in DCD Tier 2, Section 10.4.11, "Combined License Information", the COL item only states the following:

COL 10.4(6) The COL applicant is to provide operating and maintenance procedures for the following items in accordance with NUREG-0927 and a milestone schedule for implementation of the procedures.

The COL Item included in DCD Tier 2, Section 10.4.11 does not identify what items the operating and maintenance procedures need to address and is not consistent with description of the COL item in DCD Tier 2 Section 10.4.7.6.

The applicant is requested to revise the COL item to clearly identify the information that needs to be provided by the COL applicant. The applicant is to provide a DCD markup of this response.

Response

Regarding COL 10.4(6), Section 10.4.11, "Combined License Information", there is an editorial error on the description. The DCD Tier 2, Table 1.8-2 (17 of 27) and COL 10.4(6) will be revised as follows:

Current description: The COL applicant is to provide operating and maintenance procedures for the following items in accordance with NUREG-0927 and a milestone schedule for implementation of the procedures.

Revised description: The COL applicant is to provide operating and maintenance procedures in accordance with NUREG-0927 and a milestone schedule for implementation of the procedures.

Impact on DCD

DCD Tier 2, Table 1.8-2 (17 of 27) and Section 10.4.11 will be revised as indicated on the attached markup.

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.

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Table 1.8-2 (17 of 29)

Item No.	Description
COL 10.4(1)	The COL applicant is to establish operational procedures and maintenance programs for leak detection and contamination control
COL 10.4(2)	The COL applicant is to maintain the complete documentation of system design, construction, design modifications, field changes, and operations
COL 10.4(3)	The COL applicant is to provide the location and design of the cooling tower, basin, and CW pump house
COL 10.4(4)	The COL applicant is to provide elevation drawings
COL 10.4(5)	The COL applicant is to address the design features for the prevention of contamination
COL 10.4(6)	The COL applicant is to provide operating and maintenance procedures for the following items in accordance with NUREG-0927 and a milestone schedule for implementation of the procedures.
COL 10.4(7)	The COL applicant is to describe the nitrogen or equivalent system design for SG drain
COL 10.4(8)	The COL applicant is to prepare the Site Radiological Environmental Monitoring Program
COL 10.4(9)	The COL applicant is to determine the wet bulb temperature correction factor to account for potential interference and recirculation effects
COL 11.2(1)	The COL applicant is to prepare the site-specific ODCM in accordance with NEI 07-09A.
COL 11.2(2)	The COL applicant is to prepare operational procedures and programs related to operations, inspection, calibration, and maintenance of the contamination control program.
COL 11.2(3)	The COL applicant is to determine whether contaminated laundry is sent to an offsite facility for cleaning or for disposal.
COL 11.2(4)	The COL applicant is to prepare and provide the P&IDs.
COL 11.2(5)	The COL applicant is to perform a site-specific cost-benefit analysis following the guidance in the regulatory requirements of NRC RG 1.110.
COL 11.2(6)	The COL applicant is to provide reasonable assurance that the mobile or temporary equipment and interconnections to plant systems conform with the regulatory requirements and guidance of 10 CFR 50.34a, 10 CFR 20.1406, NRC RG 1.143, and ANSI/ANS 40.37.
COL 11.2(7)	The COL applicant is to develop the procedure for the collection and shipment of mixed wastes, if and when they are generated, for offsite treatment. The generation of mixed liquid wastes is minimized by process control and the controlled use of hazardous chemicals.
COL 11.2(8)	The COL applicant is to develop the interface design and provide the site-specific information for the LWMS effluent discharge, including radioactive release points, effluent temperature, the design (type, shape, and size) of flow orifices, and the sampling requirements following the guidance of NRC RG 1.21 and RG 4.15 and the standards incorporated therein by reference.

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level alarms are provided at the local panel. The auxiliary boiler package is provided with the necessary controls and indications for local or remote monitoring of system operation.

The radiation monitor is provided to monitor leaked radioactive materials in the condensed water from the boric acid concentrator package, gas stripper package, or solid waste treatment system. If the condensate is contaminated, the radiation monitor actuates an alarm in the MCR and automatically redirects the condensate to the liquid waste management system for treatment.

10.4.11 Combined License Information

- COL 10.4(1) The COL applicant is to establish operational procedures and maintenance programs for leak detection and contamination control.
- COL 10.4(2) The COL applicant is to maintain the complete documentation of system design, construction, design modifications, field changes, and operations.
- COL 10.4(3) The COL applicant is to provide the location and design of the cooling tower, basin, and CW pump house.
- COL 10.4(4) The COL applicant is to provide elevation drawings.
- COL 10.4(5) The COL applicant is to address the design features for the prevention of contamination.
- COL 10.4(6) The COL applicant is to provide operating and maintenance procedures for ~~the following items~~ in accordance with NUREG-0927 and a milestone schedule for implementation of the procedures.
- COL 10.4(7) The COL applicant is to describe the nitrogen or equivalent system design for SG drain.
- COL 10.4(8) The COL applicant is to prepare the Site Radiological Environmental Monitoring Program.