
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.: 382-8484
SRP Section: 09.04.03 – Auxiliary and Radwaste Area Ventilation System
Application Section: 9.4.7
Date of RAI Issue: 02/01/2016

Question No. 09.04.03-2

The second part of the KHNP response to Question 09.04.03-1 states that louvers with screens are used for outside air intake and discharge of the compound building controlled area HVAC subsystem to conform to RG 1.140, Regulatory Position C.3.5.

The staff does not see that the louvers with screens design for compound building described in any DCD sections. This RAI is to request the applicant to document these louvers with screens design into the related DCD sections.

Response

DCD Tier 2, Subsection 9.4.7 will be revised to include use of louvers with screens for the outside air intake and discharge of the compound building HVAC system.

Impact on DCD

DCD Tier 2, Subsection 9.4.7 will be revised 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

- m. Alarm – containment isolation valve trouble
- n. Alarm – motor trip of AHU fans, ACU fans, and fans

9.4.7 Compound Building HVAC System

The compound building HVAC system is designed to maintain a suitable environment for all equipment and personnel and the radiation zone of the compound building under a slightly negative pressure with respect to atmospheric pressure during normal operation.

The compound building HVAC system is designed in accordance with the requirements of 10 CFR Part 50 Appendix A, GDC 60.

The compound building HVAC system is classified as non-safety-related and seismic Category III.

The design and construction of ACUs conform with ASME AG-1 and ASME N509 and with the recommendations of NRC RGs 1.140 and 4.21.

The compound building HVAC system is designed to maintain the airborne radioactivity levels in the compound building controlled area below the DAC values specified in 10 CFR Part 20, Appendix B by supplying and exhausting sufficient airflow. The system is also designed to control the gaseous effluent release less than the dose and concentration criteria specified in 10 CFR Part 50, Appendix I and 10 CFR Part 20, Appendix B.

9.4.7.1 Design Bases

The compound building HVAC system consists of the following subsystems:

- a. Compound building clean area HVAC subsystem
- b. Compound building controlled area HVAC subsystem

Louvers with screens are provided for the outside air intake and discharge of the compound building HVAC system to minimize entrance of snow, rain, and trash.