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## 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.: 118-8072  
SRP Section: 10.04.04 - Turbine Bypass System  
Application Section: 10.4.4  
Date of RAI Issue: 07/27/2015

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### **Question No. 10.04.04-2**

10 CFR 52.47(b)(1) requires the application to contain the proposed inspections, tests, analyses, and acceptance criteria that are necessary and sufficient to provide reasonable assurance that, if the inspections, tests, and analyses are performed and the acceptance criteria met, a facility that incorporates the design certification has been constructed and will be operated in conformity with the design certification, the provisions of the Act, and the Commission's rules and regulations.

DCD Tier 1, Table 2.7.1.3 has the ITAAC information for the many of the systems within the APR1400 design.

The staff finds that, somehow, DCD Tier 1, Table 2.7.1.3 has no entry for the turbine bypass system. The bases for no ITAAC entry is not provided.

The applicant is requested to explain the reasoning for the lack of an entry for an ITAAC for the turbine bypass system (TBS). If necessary, the DCD is to be modified accordingly.

### **Response**

The TBS is a part of the main steam system (MSS). The TBS has no safety-related function and is not required to operate during or after an accident. Therefore, the TBS does not require any ITAAC.

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### **Impact on DCD**

There is no impact on the DCD.

**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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### **Question No. 10.04.04-3**

10 CFR 52.47(b)(1) requires the application to contain the proposed inspections, tests, analyses, and acceptance criteria that are necessary and sufficient to provide reasonable assurance that, if the inspections, tests, and analyses are performed and the acceptance criteria met, a facility that incorporates the design certification has been constructed and will be operated in conformity with the design certification, the provisions of the Act, and the Commission's rules and regulations.

DCD Tier 2, In Section 10.4.4.4, "Inspection and Testing Requirements," states that, before the system is placed in service, all the turbine bypass valves (TBVs) are tested for operability and the pipelines are hydrostatically tested to verify leak tightness.

The staff finds the DCD unclear whether the turbine bypass system (TBS) itself is also hydrostatically tested and how this test is performed.

The applicant is requested to clarify what type of test is performed in the TBS and how it is performed.

### **Response**

The TBS will be hydrostatically tested after installation. The functional test will be performed in accordance with the initial test program, during the initial startup of the APR1400 plant.

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### **Impact on DCD**

There is no impact on the DCD.

**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.