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.:	**186-8009**
SRP Section:	**09.05.07 – Emergency Diesel Engine Lubrication System**
Application Section:	**9.5.7**
Date of RAI Issue:	**09/01/2015**

Question No. 09.05.07-2

In accordance with NUREG-0800, SRP 9.5.7, onsite lubricating oil storage capacity for each diesel engine sufficient for seven days operation after any design basis event and a continuous loss of off-site power as specified in ANSI/ANS-59.52.. NUREG-0800, SRP 14.2 provides additional guidance on review of the acceptability of the pre-operational and startup tests.

Emergency Diesel Generator Auxiliaries Test #106 in DCD Tier 2, Section 14.2 confirms the 7-day requirement for fuel oil storage, but does not confirm the 7-day requirement for lubricating oil storage.

The applicant is requested to provide assurance that the lubricating oil storage design will contain and confirm the 7-day storage requirement. The DCD should be revised accordingly.

Response

Onsite lubricating oil storage capacity for each diesel engine is sufficient for 7 days of operation after any design basis accident and a continuous loss of offsite power. Therefore, DCD Tier 2, 14.2.12.1.88 will be revised to verify the onsite lubricating oil storage capacity.

Impact on DCD

DCD Tier 2, 14.2.12.1.88 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 Environment Report.

3.11 Demonstrate the operation of EDG starting air compressors.

3.12 Demonstrate that each EDG starting air system has sufficient volume available to perform five consecutive starts of its EDGs.

3.13 Demonstrate the EDG starting air system operates the EDG pneumatic controls as designed.

3.14 Demonstrate the EDG starting air alarm interlocks and automatic operation.

3.15 Demonstrate the operation of the EDG lube oil prelube pump.

3.16 Demonstrate the operation of EDG lube oil heaters.

3.17 Demonstrate the operation of EDG lube oil alarms.

3.18 Demonstrate the operation of the EDG lube oil transfer pump.

3.19 Demonstrate that the lube oil makeup tank for each EDG has sufficient capacity for 7 continuous days of the EDG rated full-power operation.

4.0 DATA REQUIRED

4.1 EDG fuel oil consumption rate

4.2 Setpoints of alarms, interlocks, and controls

4.3 Operating data for pumps and compressors

4.4 Operating data for the heaters

4.5 EDG starting air volume parameters after consecutive starts

5.0 ACCEPTANCE CRITERIA

5.1 The EDG engine fuel oil system operates as described in Subsection 9.5.4.