Draft

Request for Additional Information No. 73 (726), Revision 0

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U. S. EPR Standard Design Certification
AREVA NP Inc.
Docket No. 52-020
SRP Section: 03.07.04 - Seismic Instrumentation
Application Section: 3.7.4
RGS1 Branch

QUESTIONS

03.07.04-1

RG 1.12 states that the battery should be of sufficient capacity to power the instrumentation to sense and record 25 minutes of motion over a period of not less than the channel check test interval. RG 1.12 further states that this can be accomplished by providing enough battery capacity for a minimum of 25 minutes of system operation at any time over a 24-hour period, without recharging, in combination with a battery charger whose line power is connected to an uninterruptable power supply or a line source that is checked at least every 24 hours.

FSAR Section 3.7.4.2.3 states that each recorder is capable of operating autonomously for 25 minutes on its own backup battery power independent from other recorders. However, the battery charging capabilities are not described. Please provide additional information regarding the instrumentation battery charger.

03.07.04-2

Regarding instrument maintenance, RG 1.12 (Regulatory Position 8.2) states that instruments are to be given channel checks every 2 weeks for the first 3 months of service after startup and after the initial 3-month period and 3 consecutive successful checks, monthly channel checks are sufficient.

FSAR Section 3.7.4.5 states that surveillance activities such as periodic channel checks, functional tests, and calibrations shall be performed at intervals required by plant or facility licensing commitments. However, specific details regarding these specific dates are not provided. Please provide additional information regarding the scheduled time intervals for channel checks.

03.07.04-3

Regulatory Position 1.1 of Regulatory Guide1.166 provides guidance regarding information related to seismic instrumentation that should be maintained.

FSAR Section 3.7.4.5 describes the instrument surveillance, however does not describe the provisions for a file containing the pertinent information on all the seismic

instrumentation to be maintained. Please provide the information regarding the seismic instrumentation program as specified in Regulatory Position 1.1 of Regulatory Guide 1.166.

03.07.04-4

RG 1.166 (Regulatory Position 4.1) describes the evaluation procedures to determine the exceedance of the OBE response spectrum. FSAR Section 3.7.4.4 states that the application of the OBE exceedance criteria is based on the response spectrum ordinate criterion, however does not provide sufficient detail regarding the criteria for shutdown based on the comparison of the OBE with the response spectrum of the recorded earthquake motion.

Please clarify whether all three components of the recorded motion (5 percent of critical damping response spectra) from the free-field sensor (or the foundation level sensor) will be compared with the OBE response spectrum. Please also provide additional details regarding the criteria for exceedance of the OBE response spectrum.

03.07.04-5

RG 1.166 provides guidance regarding how to perform a CAV check for each component. While FSAR Section 3.7.4.4 states that the OBE exceedance criterion is based on a threshold response spectrum ordinate check and CAV check, the specific details regarding the CAV check are not provided. Please provide additional details regarding the CAV check including the criteria for shutdown based on CAV.