Draft

Request for Additional Information No. 120 (1536), Revision 0

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U. S. EPR Standard Design Certification
AREVA NP Inc.
Docket No. 52-020
SRP Section: 19 - Probabilistic Risk Assessment and Severe Accident Evaluation
Application Section: FSAR 19.1.2

QUESTIONS for PRA Licensing, Operations Support and Maintenance Branch 1 (AP1000/EPR Projects) (SPLA)

19-227

Follow-up on Question 19.01-13. Please specifically describe the two "Not Met" SRs due to incomplete model.

19-228

Follow-up on Question 19.01-15. Table 19.01-15-1 of AREVA's response to RAI No. 54.

a) Page 22, No. 2, according to this peer review finding, the component boundaries need to be reviewed and verified against the generic data sources. Since the review action is necessitated, this finding should not be classified as documentation issue. Furthermore, without conducting a data review, the potential impact on PRA results is assumed to be unknown. Please provide the basis to conclude that the finding would have no impact on the PRA results.

b) Page 27, No. 7, sixth column "AREVA Issue Summary/Classification" does not clearly indicate whether multiple failures from a common cause were included in the initiating event frequency development or not. If not, what is the basis for concluding that this finding would have no impact on the PRA results?

c) Page 29, No. 13, last column "Impact on the PRA Results" states that "Human-induced flooding events will be reconsidered after maintenance procedures are available." Please identify the applicant (AREVA or COL) responsible for performing this task. If AREVA will be developing the maintenance procedures, when will they be completed? If the COL applicant will be developing these procedures, please identify a COL action item to perform this task. Since maintenance procedures are currently unavailble, perform a sensitivity study to estimate the increment in flooding CDF by including human-induced flooding in the assessment. Additionally, this peer review finding indicates that failures of components such as gaskets, expansion fittings, seals, etc. are also excluded from the flooding analysis. Thus, justify their exclusion and describe the impacts on PRA results.

d) Pages 32, No. 17, please provide the justification for screening the flooding scenarios that could impact multiple divisions as a result of ESWS/DWS pipe break.

e) Page 34, No. 19 and No. 20, these two peer review findings indicate that the potential impacts of barrier failure have not been adequately assessed and door failure should not be credited in the flooding model, respectively. Since, annulus flooding is the largest contributor to the flooding CDF, please provide the impact of these findings on the PRA results. It should be noted that, bounding in modeling may not resolve the identified inappropriate practice issue.

f) Page 40, No. 29, please clarify the assessment (i.e., probabilistic, deterministic, or blended) used to evaluate the potential impacts due to excessive heat loads, electrical loads, humidity, HVAC dependency, etc. Also, provide the basis to conclude that these conditions would have no impact on the PRA results.

g) Page 41, No. 31, it is not clear whether all spatial and environmental hazards have been evaluated or not, please clarify. If not, provide the basis to conclude that the unanalyzed hazards would have no impact on the PRA results.