Office for Nuclear Regulation

An agency of HSE

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EDF AND AREVA UK EPR GENERIC DESIGN ASSESSMENT

GDA ISSUE

INTERNAL FLOODING SAFETY CASE

GI-UKEPR-IH-03 REVISION 2

Technical Area		**INTERNAL HAZARDS**	
Related Technical Areas		Human Factors Civil Engineering Environment Agency	
GDA Issue Reference	**GI-UKEPR-IH-03**	**GDA Issue Action Reference**	**GI-UKEPR-IH-03.A1**
GDA Issue	The internal flooding claims stated within the PCSR appear inconsistent with the deterministic approach to the analysis of potential sources of internal flooding.		
GDA Issue Action	Please provide adequate substantiation of the internal flooding safety case through a deterministic analysis that initally assumes an unmitigated flood source and applies a multi-legged argument that may include consideration of the following: • Potential failure mechanisms of water based systems. • Civil engineering aspects including barriers and drainage. • Systems (both engineered and administrative) to ensure that the effects of an internal flooding event are limited to loss of one division. • Any further defence in depth and ALARP measures that could be implemented into the design. • The impact of the changes made to the PCSR relating to the outcome of this substantiation on other safety case submissions such as civil engineering and human factors. The list above should not be considered to be exhaustive and the items detailed above are provided as a means to inform EDF and AREVA of my expectations. With agreement from the Regulator this action may be completed by alternative means.		