

Office for Nuclear Regulation

An agency of HSE

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WESTINGHOUSE AP1000® GENERIC DESIGN ASSESSMENT

GDA ISSUE

INTERNAL FIRE SAFETY CASE SUBSTANTIATION

GI-AP1000-IH-01 REVISION 0

Technical Area		INTERNAL HAZARDS	
Related Technical Areas		Civil Engineering	
GDA Issue Reference	GI-AP1000-IH-01	GDA Issue Action Reference	GI-AP1000-IH-01.A1
GDA Issue	Internal Fire Safety Case Substantiation		
GDA Issue Action	<p>Provide substantiation of the nuclear significant hazard barriers claimed to provide the level of fire resistance stated within the PCSR for integrity, insulation and load bearing capacity (where applicable).</p> <p>This may include a multi-legged argument consisting of the following:</p> <ul style="list-style-type: none">• Reference to physical fire testing or detailed supporting analysis (backed by appropriately verified and validated fire models) of the barriers and cable tray enclosures claimed.• The approach taken to minimise penetrations within the barriers. <p>The list above should not be considered to be exhaustive and the items detailed above are provided as a means to inform Westinghouse of my expectations.</p> <p>With agreement from the Regulator this action may be completed by alternative means.</p>		

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Technical Area		INTERNAL HAZARDS	
Related Technical Areas		Civil Engineering	
GDA Issue Reference	GI-AP1000-IH-01	GDA Issue Action Reference	GI-AP1000-IH-01.A2
GDA Issue Action	<p>Provide the substantiation of the approach taken to the design and installation of fire dampers claimed within the AP1000 PCSR.</p> <p>This may include a multi-legged argument consisting of the following factors:</p> <ul style="list-style-type: none"> • Details of the design approach to the installation of fire dampers within the AP1000 design. • The consideration of the single failure criterion. • Reference to the appropriate codes and standards which demonstrate the fire dampers installed will meet the requirements for 3 hours fire resistance both in terms of integrity and insulation. • Provisions associated with the application of any passive fire protection to ensure that the dampers meet insulation requirements as detailed within point 3 above. The approach taken to the control of the fire dampers both in terms of detection driven oper ensuring that full divisional segregation is met. <p>The list above should not be considered to be exhaustive and the items detailed above are provided as a means to inform Westinghouse of my expectations.</p> <p>With agreement from the Regulator this action may be completed by alternative means.</p>		