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# Quantification of heat flux in supercritical helium

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To perform the sizing of a safety device, the first step is the estimation of the heat flux arriving on the surfaces of the component to protect. The only reliable way to know this parameter is to perform experiments. Different tests have been done in the past by different teams but never with components filled with helium and discharging in supercritical state. CEA/SBT has in operation a test facility to quantify the heat flux on a helium tank for this kind of application in case of “loss of vacuum”. The preliminary results will be presented versus the number of layers of MLI and the fluid responsible of the loss of vacuum.

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