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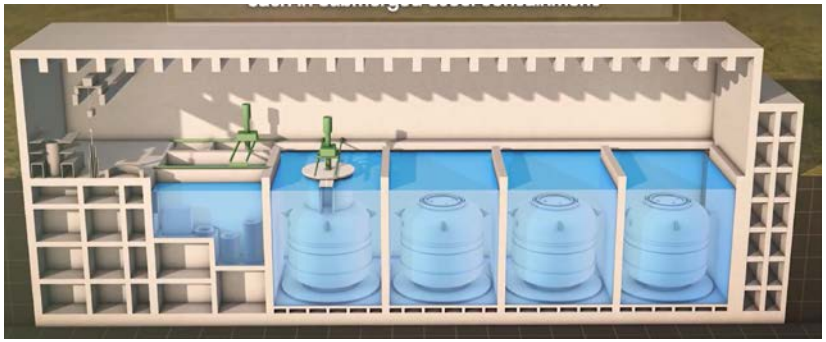
Evaluation of Small Modular Reactor (SMR) Containment Cooling

Background: The heat removal capability for the containment must be evaluated

Many SMR designs entail a submerged containment. In the hypothetical case of an accident the decay heat **(Q)** still produced in the reactor core and released to the containment must finally be transferred to the water pool open to the atmosphere



Current status at LSM:

Containment analyses are performed using the CFD-like code GOTHIC.

Your Task:

Perform simulations with GOTHIC.

The study will address the natural convection heat transfer **(HT)** from the external wall of the containment to the water pool for various conditions, including boiling of the pool