

NURETH-17



Call for Papers

Abstract Deadline: Dec. 15, 2016
Full Paper Deadline: Feb. 28, 2017

NURETH-17 Special Topic

Containment Safety Experiments

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Containment is the last barrier against the radioactive material leakage during nuclear power plant accident. To understand the phenomena in and around the containment, therefore establish and validate the related physical models, will be the key component to the safety analysis. In the past decades, various research projects have been devoted to the specific phenomena or technology in containments, such as hydrogen distribution, steam condensation, fission product behavior, Passive Autocatalytic Recombiners and passive cooling containment system. A serial of experiment facilities, such as MISTRA, TOSQAN, THAI, PANDA, HYKA facilities have been built and tests carried out. Different codes based on lumped-parameter, Computational Fluid Dynamics or Mechanistic approaches, such as ASTEC, COCOSYS, MELCOR, GOTHIC, CONTAIN, COMMIX, GASFLOW, CFX, FLUENT, OPENFOAM have been developed and validated against these experiment data. In the aftermath of Fukushima and also following the fast growing nuclear power market in countries like China, Korea, India, new facilities and codes focusing on containment are emerged.

Therefore we setup this specific topic session for 'containment safety experiments' and analysis, in order to better understand what we have known, and what have been done and what are the next targets.

Please join us in the section.

The interested topics:

- Hydrogen distribution, combustion, and mitigation
- Aerosol/Iodine wash-out, re-entrainment and resuspension
- Pool scrubbing
- Passive cooling containment technology
- Scaling and simulation
- Other related topics.

