



VERCORS

A double wall containment of H:30m & Ø:16m.

5000 t of concrete

1 year of construction

1 auxiliary building (ventilation, heating, data)

500 sensors

2 km of fiber optic cables

200 m of co-axial cables

Context

EDF operates a large fleet of nuclear reactors and is responsible for demonstrating the safety of its installations, particularly the Concrete Containment Buildings (CCB), which are non-replaceable components. In France, the leak-tightness of a CCB is achieved with 2 technologies the first one with a metallic liner like in most CCB in the world and the second one with a double-wall containment without a metallic liner.

The leak-tightness of the second type is linked to a series of complex and various parameters such as, the degree of cracking in the concrete and the opening of those cracks, the remaining pre-stress force, the delayed strains of concrete, the water saturation degree.

To face this great challenge, EDF decided in 2014 to build a mock-up of a reactor containment building at 1/3 scale on EDF lab site in “les Renardières”.

EDF thinks the best way to treat this challenge was to perform a series of benchmarks where each participant had the same data and the same given objectives to answer. There have been already 2 benchmarks organized, the first one in 2015 (early-age behavior and leak-tightness), the second one in 2018 (Creep modeling - Micromechanics and/or Multiphysics approaches; Mechanical behavior of the containment during pressurization test; Air leakage).

EDF is pleased to invite you for its 3rd benchmark in 2022 starting in 2021 !

**This benchmark receives EU funding through a Euratom project named ACES, and is supported by OECD-NEA.*

To subscribe to this benchmark please click on this link : [VERCORS 2022](#)

Planning & Organization

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