

The project has started on the 1st October 2022 and the planned duration is 48 months; the overall cost is 4276038.85 Euros and the EU Contribution is 2991694.00 Euros.

Investigate the applicability and transfer the Of large-LWR operating knowledge reactor and know-how to the near-term deployment integral PWR Of (iPWR), in the view of Severe Accident (SA) Emergency and Planning Zone (EPZ) licensing European analyses needs.

Key Objective

Key Highlights

The applicability of large-LWR • To be supportive for reactor knowledge & know-how to the near-term deployment iPWR, in view of SA and EPZ analyses, will be assessed and consolidated.

The research priorities will be identified in terms OŤ methodology, code development, experimental needs;

The knowledge gained can support Regulators in decisionmaking as well as Industry and TSOs assessing the in iPWR applicability of safety

Key Outcomes

the iPWR licensing process by bringing up key elements of safety the demonstration

- needed;
- To speed up the licensing and siting process of iPWRs in Europe

Generic designs considered

To maximize the knowledge transferability and impacts of the project two generic design-concepts will be considered characterized by different evolutionary innovations in comparison with larger operating reactor.

The two generic reactor concept

- Include the main iPWR design features, considered in the most promising designs ready to go on the European market;
- Allow to assess in a wider way the capability of codes (SA and CFD) to simulate the SA phenomena typical of iPWR.

It is not the project's objective to assess the generic reactor designs selected but based on the project findings, allow a more general statement on the code's applicability to currently favored designs under postulated SA condition.

features;





iPWR characterized by a submerged containment and electric power of about 60 Mwe.

Design ^{*}



iPWR characterized by the of several passive use systems, a dry containment and an electric power of about 300MWe.

Design 2





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