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HORIZON EURATOM SASPAM-SA PROJECT: MAIN IDEAS AND FIRST OUTCOMES

Today, there is growing interest for light water integral PWRs (iPWR), that for their main specific features are considered one of the key technologies for the short-term nuclear technology deployment. In this framework, despite iPWRs show a reinforcement of the first three levels of DiD due to the use of passive safety systems, independent features for preventing or mitigating hypothetical Severe Accident (SA) sequences have to be included in the design. Therefore, some scenarios that could lead to SAs need to be postulated and deterministically studied along the design and the safety review process. Considering that iPWRs technology comes from the Large LWR operational experience including evolutionary modifications, in order to speed-up the European licensing/siting process of iPWRs, the Horizon Euratom SASPAM-SA (Safety analysis of SMR with Passive Mitigation strategies –Severe Accident) project aims at investigating the applicability and transfer of the operating large LWR knowledge and know-how to iPWRs taking into account SA and EPZ European licensing needs. The project, coordinated by ENEA, started in October 2022 and involves 23 Organization. The paper aims at describing the pillars and goals of SASPAM-SA and provide the main results of the research activities performed in the first phase of the project.

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YES

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