

Investigation on the Mitigation System Design for a Large-Water-Leak Accident of Prototype Generation-IV Sodium-Cooled Fast Reactor

박선희<sup>†</sup>, 한지웅  
한국원자력연구원

(sunheepark@kaeri.re.kr<sup>†</sup>)

We carried out design of mitigation system of Prototype Generation-IV Sodium-cooled Fast Reactor. We analyzed pressure-wave behavior transferred to intermediate heat exchangers when tubes of a steam generator were broken to cause a large-water-leak accident, and evaluated sensitivity tests of a bursting time and location of rupture disks. Also, we analyzed fluid-dynamic behavior when fluids inside the steam generator were vented to dump tanks. This work was supported by the NRF Nuclear Research & Development Program.