

# **THERMAL HYDRAULICS IN FHRs: KEY SIMILARITIES AND DIFFERENCES WITH LWRS**

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## **ABSTRACT**

Fluoride salt cooled, high-temperature reactors (FHRs) have major similarities and differences, in thermal hydraulics phenomena with light water reactors. Recent experimental and modeling work suggests that passive safety system performance in FHRs can be predicted using the same framework developed for the licensing of the passive safety systems in the AP1000 and ESBWR, and planned for new light water small modular reactors. Both the FHR and LWR reactor classes can use reduced-height, reduced-area scaled integral-effects test facilities to replicate passive safety transient response and validate licensing codes. This talk will describe the similarities and differences, and outline the implications for design and licensing of future FHRs.

## **KEYWORDS**

Fluoride salt, high-temperature reactors, FHRs, passive safety system