

安全与管理

AP1000小破口失水始发严重事故的源项研究

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摘要 建立AP1000的事故分析模型, 选取小破口失水始发的严重事故, 在研究事故进程的基础上, 分析计算事故下裂变产物释放和迁移的特性, 重点关注惰性气体、挥发性裂变产物和非挥发性裂变产物在核电厂的分布, 并选择破口位置、破口尺寸和安全壳泄漏率进行源项敏感性分析。本文分析结果可为严重事故管理和厂外放射性后果评价提供支持。

关键词 [AP1000](#) [小破口失水事故](#) [严重事故](#) [源项](#)

分类号

Source Term in Severe Accident Induced by Small Break Loss of Coolant Accident for AP1000

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Abstract The accident analysis model of AP1000 was established by using integrated safety analysis code. On the basis of analyzing progression of accident, the characteristics including fission products release and transport were analyzed and computed. The distributions of inert gases, volatile fission products and nonvolatile fission products were focused. The sensitivity impact of break location, break size and leak rate of containment was also analyzed. The analyzed results of this paper may give some support for severe accident management and assessment of the accident consequences.

Key words [AP1000](#) [small break loss of coolant accident](#) [severe accident](#) [source term](#)

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