反应堆工程

# 概率安全评价在CPR1000机组严重事故预防与缓解措施分析中的应用

刘萍萍; 张宁

中科华核电技术研究院有限公司，广东 深圳 518026

**摘要**　　文章阐述了概率安全评价（PSA）与严重事故分析之间的关系，介绍了PSA在严重事故预防与缓解措施分析中的应用过程与方法，通过PSA分析，发现了核电厂严重事故预防与缓解的薄弱环节，提出相应的改进措施，并从核安全风险角度对这些措施的有效性进行评价。文章结合CPR1000机组严重事故预防与缓解措施的研究，说明了PSA在严重事故研究中的应用。

关键词　 概率安全评价　 严重事故　 预防与缓解　 有效性评价　 改进措施

分类号

## Application of Probabilistic Safety Assessment in CPR1000 Severe Accident Prevention and Mitigation Analysis

LIU Ping-ping; ZHANG Ning

China Nuclear Power Technology Institute, Shenzhen 518026, China

**Abstract**　The relationship between probabilistic safety assessment (PSA) and severe accident study was discussed. Also how to apply PSA in severe accident prevention and mitigation was elaborated. PSA can find the plant vulnerabilities of severe accidents prevention and mitigation. Some modifications or improvements focusing on these vulnerabilities can be put forward. PSA also can assess the efficient of these actions for decision-making. According to CPR1000 unit severe accident analysis, an example for the process and method on how to use PSA to enhance the ability to deal with severe accident prevention and mitigation was set forth.

**Key words**　 probabilistic　 safety　 assessment　 severe　 accident　 prevention　 and　 mitigation　 efficiency　 assessment　 improvement

DOI

通讯作者

---

**扩展功能**

**本文信息**
- Supporting info
- [PDF全文](503KB)
- [HTML全文](0KB)
- 参考文献

**服务与反馈**
- 把本文推荐给朋友

**相关信息**
- 本刊中 包含"概率安全评价"的相关文章

本文作者相关文章
- 刘萍萍
- 张宁