

设备与系统

反应堆重水系统干燥试验

叶林; 黄洪文; 钱达志; 杨大为; 周珊

中国工程物理研究院 核物理与化学研究所, 四川 绵阳621900

收稿日期 修回日期 网络版发布日期:

摘要 为彻底干燥反应堆重水系统管道和设备, 解决阀门阀体底部蓄水、干燥设备吹扫死角等干燥试验技术难点, 采用干空气吹扫与抽真空结合的干燥方法、加热干空气和设备局部加热等措施, 通过监测系统出口处空气露点变化和系统整体保真空试验, 准确测定并确保了系统干燥程度达到要求。适量重水充入系统后, 浓度微降0.02%, 说明干燥有效、彻底。

关键词 [反应堆](#) [重水系统](#) [干燥](#)

分类号

Test for Drying Heavy Water System of Nuclear Reactor

YE Li n; HUANG Hong-wen; QIAN Da-zhi ; YANG Da-wei ; ZHOU Shan

China Academy of Engineering Physics, P. O. Box 919-227, Mi anyang 62190 0, Chi na

Abstract In order to preventing water from commixing heavy water, the pipeline and equipments of the heavy water system must be dewatered before filling heavy water. The dewatering technology of combining hot air blowing method with vacuum-drying method was applied to dry the pipeline. Heating compressed air and local heating with electric heating belt were adapted, and the water dew point at the system outlet was detected, the maintaining vacuum test was performed in the drying process to assure the drying degree of the system meet the specification. The heavy water concentration filled in the drying system was reduced to be less than 0.02%, and it indicates this dewatering technology is effective for drying heavy water system of nuclear reactor.

Key words [reactor](#) [heavy](#) [water](#) [system](#) [drying](#)

DOI

通讯作者

扩展功能

本文信息

- ▶ [Supporting info](#)
- ▶ [\[PDF全文\]\(644KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [参考文献](#)

服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [文章反馈](#)
- ▶ [浏览反馈信息](#)

相关信息

- ▶ [本刊中 包含“反应堆”的 相关文章](#)
- ▶ 本文作者相关文章

- [叶林](#)
- [黄洪文](#)
- [钱达志](#)
- [杨大为](#)
- [周珊](#)