

第 4 期

2014

第7卷 第4期 Vol.7 No.4

ISSN 1674-1617
CN 11-5660/TL

中国核电

CHINA NUCLEAR POWER



ISSN 1674-1617



9 771674 161083

万方数据

中国核工业集团公司 主管
中国原子能出版社 主办

目次



◆ 核电专访

中国核电站运行安全可靠

叶奇蓁 290

◆ 核电研发

秦山第二核电厂鼓型滤网轮毂加固装置的研发与应用

王运喜, 孙国忠, 刘 强, 等 292

玻璃钢管道在核电厂循环水系统中的设计及应用

张 旭, 戴 云 297

◆ 核电技术

海阳核电1号机组倒送电辅助变压器冲击试验保护分析

张雪华, 陈腾飞 302



核电厂主蒸汽¹⁶N监测用于蒸汽发生器泄漏率测量的研究

郑军伟, 薛 峰, 王骄亚, 等 306

◆ 核电设备

AP1000核电厂凝汽器与低压缸接缸焊接工艺及变形控制

陈 箭 311

AP1000核电机组稳压器支撑加固的工程实践

王 垣 317



◆ 核电运营

核电厂空气压缩机冷却器结垢原因分析及处理

边春华, 刘 忠, 苗学良, 等 322

VVER机组一回路加氨量化控制方法的研究

胡 海, 王 磊, 王宇宙 326

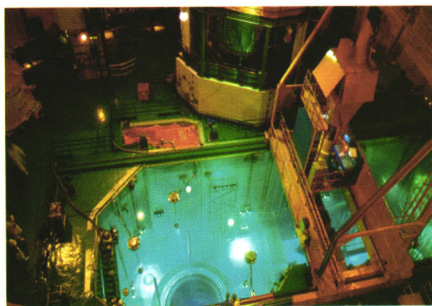
◆ 核电管理

压水堆核电厂乏燃料后处理平准成本分析

张小枝, 何 辉, 郑卫芳, 等 331

田湾核电站信息化建设中的数据管理

姜礼瑞, 王印辉, 刘 峰, 等 336



核电管理 ◆

AP1000核电厂常规岛设计中的接口管理
李光韬, 徐慧玲, 刘 琛 340

核电工程造价与核安全保障研究
傅三红, 陈剑波, 何 斌 345

核电安全 ◆

核电厂严重事故情况下氢气控制分析
刘 玮, 王 菲, 杨海林, 等 352

重水堆机组大修的核安全风险控制
吴明亮, 郑建华 359

青年论坛◆

EPC模式下核电设备采购管理
帅月智 365

压水堆核电厂堆芯换料模式研究及管理系统实现
马文君, 宋亚峰, 吴健蕾, 等 372

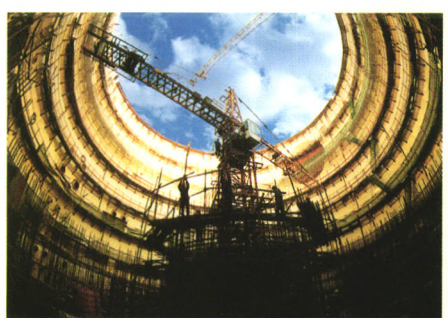
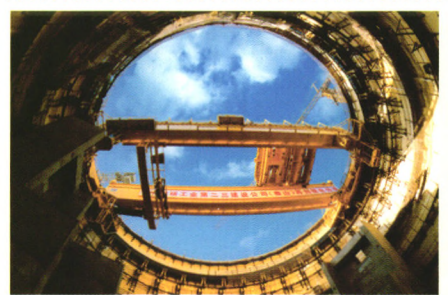
核电厂铅钙蓄电池与铅锑蓄电池析氢量分析
赵宏军, 齐索妮, 沈 岩, 等 378

核电资讯 ◆

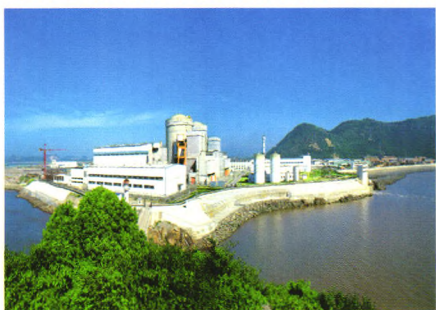
国内特别报道 382

国外最新消息 384

总目录 386



CONTENTS



Exclusive Interview on Nuclear Power

Safety and Reliability of Nuclear Power Plant Operation in China
YE Qi-zhen 290

Nuclear Power R&D

The Repair Design for the Drum Filter Hub in Qinshan II
WANG Yun-xi, SUN Guo-zhong, LIU Qiang, et al. 292
The Design and Application of FRP Pipes in Nuclear Power Plant
Circulation Water System
ZHANG Xu, DAI Yun 297

Nuclear Power Technology

RAT Impact Test Analysis for Unit 1 of Haiyang Nuclear Plant
during Initial Energization
ZHANG Xue-hua, CHEN Teng-fei 302
Nuclear Power Plant Main Steam ^{16}N Monitoring Used for Steam
Generator Leak Rate Measurement
ZHENG Jun-wei, XUE Feng, WANG Jiao-ya, et al. 306

Nuclear Power Equipment

Welding Connection Technology and Deformation Control of AP1000
Nuclear Power Plant Condenser and Low Pressure Cylinder
CHEN Jian 311
The Engineering Practice for the First AP1000 Pressurizer Support
Reinforcement
WANG Yuan 317

Nuclear Power Operation

Failure Analysis and Treatment Countermeasures for Scaling of
Heat Transfer Tube of Air Compressor in Nuclear Power Plant
BIAN Chun-hua, LIU Zhong, MIAO Xue-liang, et al. 322
Study on Quantitative Control of Feeding Ammonia Solution to
the Primary Coolant of VVER Unit
HU Hai, WANG Lei, WANG Yu-zhou 326

Nuclear Power Management

Calculation of Levelized Electricity Cost for Reprocessing Spent
Fuel of LWR Power Plant
ZHANG Xiao-zhi, HE Hui, ZHENG Wei-Fang, et al. 331
Exploration and Practice of Data Management in Information
Construction of Tianwan Nuclear Power Station
JIANG Li-rui, WANG Yin-hui, LIU Feng, et al. 336

Nuclear Power Management

Research on Management Technology of CI Interface for AP1000

Nuclear Power Plants

LI Guang-tao, XU Hui-ling, LIU Chen 340

Study on Engineering Cost and Nuclear Safety Management for

Nuclear Power Project

FU San-hong, CHEN Jian-bo, HE Bin 345

Nuclear Power Safety

Hydrogen Control in Severe Accident of Nuclear Power Plant

LIU Wei, WANG Fei, YANG Hai-lin, et al. 352

Nuclear Safety Risk Control in the Outage of CANDU Unit

WU Ming-liang, ZHENG Jian-hua 359

Youth Forum

Nuclear Power Equipment Procurement Management under EPC Mode

SHUAI Yue-zhi 365

Study and Implementation of Pressurized Water Reactor Refueling

Mode and Management System

MA Wen-jun, SONG Ya-feng, WU Jian-lei, et al. 372

Hydrogen Generation Comparison Between Lead-Calcium and

Lead-Antimony Batteries in Nuclear Power Plant

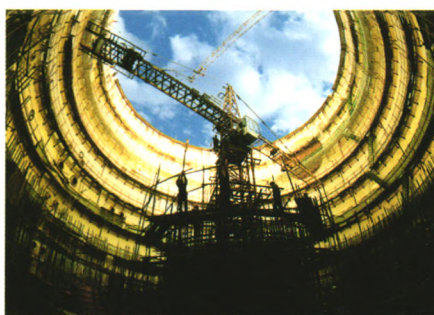
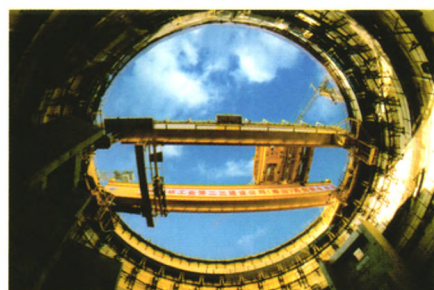
ZHAO Hong-jun, QI Suo-ni, SHEN Yan, et al. 378

Nuclear Power Information

Domestic Special Report 382

Latest Foreign News 384

Contents 386



中国核电

CHINA NUCLEAR POWER

2014年12月第7卷第4期 (总第28期)

(季刊 2008年创刊)

主 管: 中国核工业集团公司

主 办: 中国原子能出版社

主 编: 俞培根

出版发行: 《中国核电》杂志社

发行范围: 国内外公开发行

联 系 人: 卫广刚, 王丹, 曹晨, 韩霞
(北京市海淀区阜成路43号 邮编100048)

电 话: (010)88828674; 88828694

传 真: (010)88828694; 68462459

E-mail: zgnd2008@sina.com

印 刷: 保定市申画美凯印刷有限公司

国内发行: 全国各地邮局

邮发刊号: 80-910

国外发行: 中国国际图书贸易总公司
(北京市399信箱, 邮编100044)

Dec. 2014 Vol.7 No.4(Sum No.28)

(Quarterly, First started in 2008)

Under the auspices of China National Nuclear Corporation

Sponsored by China Atomic Energy Press

Editor-in-chief: YU Pei-gen

Published and issued by Periodical Office of China Nuclear Power

Public issue both at home and abroad

Contacts: WEI Guang-gang, WANG Dan, CAO Chen, HAN Xia
(No.43, Fucheng Road, Haidian District, Beijing 100048, China)

Tel: (8610)88828674; 88828694

Fax: (8610)88828694; 68462459

E-mail: zgnd2008@sina.com

Printed by Zhonghuameikai Printing Co., Ltd., Baoding

Distributed Inland by Local Post Offices

Postal Issue No.80-910

Distributed Abroad by China International Book
Trading Corporation

(P.O.Box 399, Beijing 100044, China)

中国标准刊号: ISSN 1674-1617
CN 11-5660/TL

2014年12月出版

国内定价: 30.00元 国外定价: 15.00美元