

TECHNICAL PAPERS

REACTOR SAFETY

- 109 Assessment of the Load-Carrying Capacities of a Spherical Pressurized Water Reactor Steel Containment Under a Postulated Hydrogen Detonation / *R. Krieg, B. Dolensky, B. Göller, W. Breitung, R. Redlinger, P. Royl*

FUEL CYCLE AND MANAGEMENT

- 122 Multicycle Optimization of Advanced Gas-Cooled Reactor Loading Patterns Using Genetic Algorithms / *A. Kemal Ziver, Jonathan N. Carter, Christopher C. Pain, Cassiano R. E. de Oliveira, Antony J. H. Goddard, Richard S. Overton*

THERMAL HYDRAULICS

- 142 Development of a RELAP5-3D Multidimensional Model of a VVER-1000 NPP for Analysis of a Large-Break Loss-of-Coolant Accident / *Kevin T. Clarno, Yassin A. Hassan*

NUCLEAR PLANT OPERATIONS AND CONTROL

- 157 Development and Application of Axially Variable Strength Control Rods for the Power Maneuvering of Pressurized Water Reactors / *Ung-Soo Kim, Poong-Hyun Seong*

RADIOACTIVE WASTE MANAGEMENT AND DISPOSAL

- 167 Vaporization Rate of Cesium from Molten Slag in a Plasma Melting Furnace for the Treatment of Simulated Low-Level Radioactive Wastes / *Shinji Yasui, Tadashi Amakawa*
- 177 Using the Monte Carlo Coupling Technique to Evaluate the Shielding Ability of a Modular Shielding House to Accommodate Spent-Fuel Transportable Storage Casks / *Kohtaro Ueki, Kazuo Kawakami, Daisuke Shimizu*

ACCELERATORS

- 186 Analysis of Severe Accident Scenarios and Proposals for Safety Improvements for ADS Transmuters with Dedicated Fuel / *Werner Maschek, Andrei Rineiski, Michael Flad, Koji Morita, Pierre Coste*

TECHNICAL NOTES

THERMAL HYDRAULICS

- 202 An Approach for Selection of Flow Regime and Models for Conservative Evaluation of a Vessel Integrity Monitoring System for Water-Cooled Vacuum Vessels / *W. David Pointer, Arthur E. Ruggles*

RADIOACTIVE WASTE MANAGEMENT AND DISPOSAL

- 211 The Effect of Pitch, Burnup, and Absorbers on a TRIGA Spent-Fuel Pool Criticality Safety / *Marjan Logar, Robert Jeraj, Bogdan Glumac*