

nuclear technology®

CONTENTS / AUGUST 1974—VOL. 23, NO. 2

NUCLEAR SAFEGUARDS (Presented at November 1973 Meeting)

100 Preface / *The Editor*

TECHNICAL PAPERS

- 101 Recent Developments in Nuclear Fuel Cycle Safeguards / *William C. Bartels*
- 106 Uranium Assay Requirements of Nuclear Accountability and Safeguards / *Carleton D. Bingham, Morris W. Lerner*
- 112 Design Concepts Study of a Special Nuclear Material Cargo Vehicle / *R. E. Reed*
- 117 A System for Communication with Commercial Special Nuclear Material Shipments / *J. M. de Montmollin, T. A. Sellers*
- 124 Portal Monitor for Diversion Safeguards / *Thomas E. Sampson, Paul E. Fehlau, Gary M. Worth, Carl N. Henry*
- 132 Chemical Assay of Plutonium for Safeguards / *Darryl D. Jackson, James E. Rein, Glenn R. Waterbury*
- 142 Security Seals for Safeguards / *C. Sastre*
-

REACTORS

- 146 Removal of Iodine by Sprays in the PSICO 10 Model Containment Vessel / *S. Barsali, R. Bovalini, F. Fineschi, B. Guerrini, S. Lanza, M. Mazzini, R. Mirandola*

CHEMICAL PROCESSING

- 157 Surface Density Method Employing Unit Shape Factor (s/v) for the Storage of Fissile Materials / *C. L. Schuske, D. Dickinson, S. J. Altschuler*
- 177 Simplified Methods of Estimating the Results of Accidental Solution Excursions / *Grover Tuck*

MATERIALS

- 189 A Quantitative Strain-and-Stress State Criterion for Failure in the Vicinity of Sharp Cracks / *T. J. Walker*

DEPARTMENTS

- 96 Authors
- 204 Letter To The Editor
- 205 Book Review