

### TUTORIAL MATERIALS/DESIGN INTERACTION IN NUCLEAR SYSTEMS

121 Preface / *The Editor*

### TECHNICAL PAPERS

122 Rationale for Incorporating Inservice Inspection Requirements During Nuclear Power Plant Design/Fabrication / *Gary J. Dau*

129 Materials and Design Interaction in Advanced Reactors / *J. Boulton*

138 The Effect of Swelling and Creep on Liquid-Metal Fast Breeder Reactor Performance / *W. P. Barthold, J. C. Beitel*

---

### REACTORS

149 On the Probability of Loss of dc Power Following ac Failure in a Nuclear Power Plant / *J. Chun, G. E. Apostolakis*

159 Operation of the Water-to-Sodium Leak Detection System at the Experimental Breeder Reactor II / *Marilyn M. Osterhout*

### REACTOR SITING

170 Calculation of Radiological Dose due to Release of Tritium Oxides from Controlled Thermonuclear Reactors / *T. E. McKone, W. E. Kastenber*

### CHEMICAL PROCESSING

185 The Interactions of Hydrazine, Ferrous Sulfamate, Sodium Nitrite, and Nitric Acid in Nuclear Fuel Processing Solutions / *Leonard W. Gray*

### MATERIALS

194 Neutron Irradiation Effects on Carbon and Graphite Cloths and Fibers / *W. J. Gray*

(Continued)

#### ON THIS COVER

This month's cover is a closeup taken from a ring forging of a shell course, as shown in the paper by Gary J. Dau. Dau credits J. Widart for the idea of the method of fabrication.

# CONTENTS / SEPTEMBER 1978—VOL. 40, NO. 2

(Continued)

## RADIATION

- 208 Injecting Irradiation Samples with a Uniform Concentration of Helium Using Curium-244 / *N. H. Packan, W. A. Coghlan*

## TECHNICAL NOTE

### CHEMICAL PROCESSING

- 214 High-Level Radioactive Waste Incorporation into (Special) Cements / *Della M. Roy, George R. Gouda*

## DEPARTMENT

- 117 Authors