nuclear freehology®

CONTENTS / DECEMBER 1989-VOL. 87, NO. 4

TMI-2: DECONTAMINATION AND WASTE MANAGEMENT

- 717 Editor's Note / James F. Schumar
- 719 Preface: Three Mile Island Unit 2 Decontamination and Waste Management / Harley W. Reno

TECHNICAL PAPERS

ON THIS COVER

- 721 Quality Assurance in the Removal and Transport of the Three Mile Island Unit 2 Core / Glen R. Hayes, Joseph F. Marsden
- 729 The Effects of Hydrogen Generation on Radioactive Waste Handling Technology / James O. Henrie
- 737 Processing and Disposal of Radioactive Sediments at Three Mile Island Unit 2 / George D. Cremeans, Richard F. Mahla
- 745 Final Disposition of Three Mile Island Unit 2 Accident-Generated Water / George D. Cremeans
- 755 U.S. Nuclear Regulatory Commission Inspection of Transportation Casks / *Claudia M. Abbate, John W. Craig*
- **759** Plant Equipment Modifications Required to Place Three Mile Island Unit 2 in a Postdefueling Monitored Storage Configuration / *T. Chris Fonner*
- 772 Three Mile Island Unit 2 Postdefueling Regulatory Considerations / Sidney W. Smith, James J. Byrne
- **778** The Evaluation of Radionuclide Penetration of Structural Concrete Surfaces in the Three Mile Island Unit 2 Reactor Building / *Clay M. Davis*
- 786 Analysis of Data from Leaching Concrete Samples Taken from the Three Mile Island Unit 2 Reactor Building Basement / Emory D. Collins, W. Donald Box, Herschel W. Godbee, Timothy C. Scott
- 797 Design of a Filter Aid and Coagulant Addition System at Three Mile Island Unit 2 / Pieter R. van Stolk, Mark D. Smith
- **803** Characterization Studies of Solids from Reactor Coolant System Water and Test Filter Media from Three Mile Island Unit 2 / *David O. Campbell*
- 814 Utilization of Three Mile Island Unit 2 Research and Development Information in Japan / Nobuyuki Tabata, Fujio Masuda

(Continued)

Unloading the Nu-Pac 125 rail cask from Three Mile Island Unit 2 nuclear power station at the gantry crane in the Central Facilities Area of the Idaho National Engineering Laboratory.

CONTENTS / DECEMBER 1989-VOL. 87, NO. 4

(Continued)

- 824 Use of Deep-Bed Filtration Technology in the Cleanup of Three Mile Island Unit 2 / Mark Douglas Smith
- 837 The Identification and Control of Microorganisms at Three Mile Island Unit 2 / Kenneth J. Hofstetter, Beverly S. Ausmus
- 845 Sampling and Examination Methods Used for Three Mile Island Unit 2 / Alan W. Marley, Douglas W. Akers, Charles V. McIsaac
- 857 Timing of the Three Mile Island Unit 2 Core Degradation as Determined by Forensic Engineering / James O. Henrie
- 865 Three Mile Island Unit 2 Core Geometry / Malcolm L. Russell, Richard K. McCardell
- 875 Scanning Electron Microanalysis Techniques for Three Mile Island Unit 2 Core Samples / Bruce A. Pregger, Charles S. Olsen
- 884 Application of Severe Fuel Damage Experiments to Evaluating Three Mile Island Unit 2 Core Materials Behavior / Charles S. Olsen, Richard R. Hobbins, Beverly A. Cook
- **897** Three Mile Island Unit 2 Data Qualification and Data Bases / Daniel W. Golden, Ronne W. Brower, James L. Anderson, Larry J. Fackrell, Robert D. McCormick
- **907** Analysis of Hydrogen Burn in the Three Mile Island Unit 2 Accident with the CONTAIN1.1 Computer Code / *Ken Muramatsu, Kunihisa Soda*
- 912 Analysis of the Refill Phenomena During the Three Mile Island Unit 2 Accident / Yasushi Nomura, James L. Anderson
- **926** Potential for Recriticality of the Relocated Core / Bernard R. Bandini, Anthony J. Baratta
- 932 Drilling Operations to Remove the Lower Core Support Assembly at Three Mile Island Unit 2 / Herbert W. Kirkland, Marc A. Nemser, William M. Laney
- **946** Three Mile Island Unit 2 Analysis Exercise: CATHARE Computations of Phases 1 and 2 of the Accident / *Patrick Dumaz*

PLENARY PAPER

956 Closing Plenary – Enhanced Reactor Safety: Lessons Learned from Three Mile Island Unit 2 / *Sid Langer, Dennis Owen*

MATERIALS BEHAVIOR

- 977 Thermal Interactions During the Three Mile Island Unit 2 2-B Coolant Pump Transient / Pui Kuan, James L. Anderson, E. L. Tolman
- 990 Three Mile Island Unit 2 Degraded Core Heatup and Cooldown Analysis / Richard L. Moore, Daniel W. Golden, E. L. Tolman

(Continued)

CONTENTS / DECEMBER 1989-VOL. 87, NO. 4

(Continued)

- 1005 Molten Material Behavior in the Three Mile Island Unit 2 Accident / Richard R. Hobbins, Malcolm L. Russell, Charles S. Olsen, Richard K. McCardell
- 1013 The Overall Source Range Monitor Response During the Three Mile Island Unit 2 Accident / Anthony J. Baratta, Alireza Haghighat, Bernard R. Bandini
- **1021** The Three Mile Island Unit 2 Core Relocation Heat Transfer and Mechanism / *Michael Epstein, Hans K. Fauske*
- **1036** Comparison of Thermal and Mechanical Responses of the Three Mile Island Unit 2 Reactor Vessel / *Gary L. Thinnes, Richard L. Moore*
- **1050** MELCOR Analysis of the Three Mile Island Unit 2 Accident / Edward A. Boucheron, John E. Kelly
- 1058 Thermal-Hydraulic Analysis of the Initial Phase of the Three Mile Island Unit 2 Accident / Kazuichiro Hashimoto, Kunihisa Soda, Hideo Sekiya
- **1067** Simulation of the First 174 Minutes of the Three Mile Island Unit 2 Accident Using MAAP 3.0B / *Ariel Sharon, Laurence J. Godin, Francisco J. de Mora, Robert E. Henry, Garry R. Thomas*
- 1086 ATHLET Analysis of the Three Mile Island Unit 2 Accident / Adly B. Wahba, Fritz Steinhoff

HEALTH PHYSICS AND ENVIRONMENTAL RELEASES

1099 Worker Exposures During the Three Mile Island Unit 2 Recovery / Dale J. Merchant

REMOTE TECHNOLOGY AND ENGINEERING

- 1109 Three Mile Island Unit 2 Reactor Vessel Head and Plenum Removal / C. W. (Swede) Hultman, Richard W. Jackson
- **1112** Three Mile Island Unit 2 Core Region Defueling / Jon M. Rodabaugh, David K. Cowser
- 1117 Disassembly and Defueling of the Three Mile Island Unit 2 Upper Core Support Assembly / Jon M. Rodabaugh
- 1122 Operations and Achievements of Remote Equipment at Three Mile Island Unit 2 / Michael D. Pavelek II, Wayne Underhill, F. Lee Bozorgi, Joseph F. Boudreaux
- 1134 An Overview of Nuclear Criticality Safety Analyses Performed to Support Three Mile Island Unit 2 Defueling / Daniel S. Williams, John C. Rommel, Raymond L. Murray

DEPARTMENTS

- 701 Authors
- 1145 Volume 87 Indexes
 - vii Volume 87 Contents