

## MICHAEL E. DUNN

### SELECTED PUBLICATIONS

#### 1994

1. C. Bentley, B. Basoglu, **M. Dunn**, M. Plaster, A. Ruggles, A. Wilkinson, T. Yamamoto, and H. Dodds, "Shutdown Mechanisms for a Hypothetical Criticality Accident Involving HEU Powder," *Trans. Am. Nucl. Soc.*, **70**, 188 (June 1994).
2. **M. E. Dunn**, B. Basoglu, C. L. Bentley, C. Haught, M. J. Plaster, A. D. Wilkinson, T. Yamamoto, and H. L. Dodds, "Validation of KENO V.a with ENDF/B-V Cross Sections for U-233 Systems," *Trans. Am. Nucl. Soc.*, **70**, 181 (June 1994).
3. M. J. Plaster, B. Basoglu, C. L. Bentley, **M. E. Dunn**, A. E. Ruggles, A. Wilkinson, T. Yamamoto, and H. L. Dodds, "Analysis of a Hypothetical Criticality Accident in a Waste Supercompactor," *Trans. Am. Nucl. Soc.*, **70**, 189 (June 1994).
4. **Michael E. Dunn**, "Nuclear Criticality Safety Evaluation of the U-233 Inventory at the Oak Ridge National Laboratory Using ENDF/B-V Cross Sections," M.S. Thesis, The University of Tennessee, Knoxville (August 1994).
5. **M. E. Dunn**, B. Basoglu, C. L. Bentley, S. Goluoglu, C. Haught, M. J. Plaster, A. D. Wilkinson, T. Yamamoto, and H. L. Dodds, "Nuclear Criticality Safety Evaluation of U-233 Storage Configurations Using ENDF//B-V Cross Sections," *Trans. Am. Nucl. Soc.*, **71**, 278 (November 1994).

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Criticality Accidents: Preliminary Results," Technical Note *Nucl. Tech.*, **111**(2), 227–240 (August 1995).

9. B. Basoglu, C. L. Bentley, **M. E. Dunn**, S. Goluoglu, L. Paschal, and H. L. Dodds, "Evaluation of Several Parallel Algorithms for KENO-V.a," *Trans. Am. Nucl. Soc.*, **73**, 183 (October 1995).
10. **M. E. Dunn**, C. L. Bentley and J. K. Mattingly, "Time-Frequency Analysis of Electric Motors," *Trans. Am. Nucl. Soc.*, **73**, 310 (October 1995).

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11. **M. E. Dunn**, C. L. Bentley, S. Goluoglu, L. S. Paschal, R. E. Pevey, H. L. Dodds, and L. M. Petrie, "Development of a Continuous Energy Version of KENO V.a," *Trans. Am. Nucl. Soc.*, **74**, 230 (June 1996).
12. **Michael E. Dunn**, "Development of a Continuous Energy Version of the Monte Carlo Code KENO V.a," Ph.D. Dissertation, The University of Tennessee, Knoxville (December 1996).

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13. **M. E. Dunn**, C. L. Bentley, S. Goluoglu, R. E. Pevey, H. L. Dodds, and L. M. Petrie, "Continuous Energy Methods Development for the Monte Carlo KENO V.a," *Trans. Am. Nucl. Soc.*, **76** (June 1997).
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### 1998

15. **M. E. Dunn**, *Production of MCNP Cross Sections Using the AMPX and NJOY Processing Code Systems*, ORNL/M-6609 (Letter Report to C. W. Nilsen), Lockheed Martin Energy Research Corp., Oak Ridge National Laboratory, October 1998.

## 1999

16. **M. E. Dunn** and N. M. Greene, *Testing of Multi-pole Formalism and POLIDENT Continuous Energy Cross-Section Data for Criticality Safety Applications*, ORNL/NRC/LTR-99/9 (to C. W. Nilsen), Lockheed Martin Energy Research Corp., Oak Ridge National Laboratory, May 1999. [Task 11 Milestone Report for W6479]
17. **M. E. Dunn** and P. B. Fox, *Criticality Safety Scoping Study for the Transport of Weapons Grade Mixed Oxide Fuel Using the MO-1 Shipping Package*, ORNL/TM-13741, Lockheed Martin Energy Research Corp., Oak Ridge National Laboratory, May 1999.
18. **M. E. Dunn**, N. M. Greene, and L. C. Leal, “Energy Meshing Techniques for Processing ENDF/B-VI Cross Sections Using the AMPX Code System,” in *Proc. of American Nuclear Society 1999 Annual Meeting*, Boston, MA, June 6–10, 1999. *Trans. Am. Nucl. Soc.*, **80**, 140–142 (1999).
19. **M. E. Dunn**, N. M. Greene, and D. F. Hollenbach, “Development and Testing of a New AMPX Cross Section Processing System for Criticality Safety Applications,” in *Proc. American Nuclear Society 1999 Winter Meeting and Embedded Topical Meetings*, November 14–18, 1999, Long Beach, CA. *Trans. Am. Nucl. Soc.*, **81**, 160–161 (1999).

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21. **M. E. Dunn**, *PUFF-III: A Code for Processing ENDF Uncertainty Data Into Multigroup Covariance Matrices*, NUREG/CR-6650 (ORNL/TM-1999/235), U.S. Nuclear Regulatory Commission, Oak Ridge National Laboratory, June 2000.
22. **M. E. Dunn**, *Production of Probability Tables for the Unresolved-Resonance Region Using the AMPX Cross-section Processing System*, ORNL/NRC/LTR-00/11 (to D. D. Ebert), U.S. Nuclear Regulatory Commission, Oak Ridge National Laboratory, October 2000. [Contract Program or Project Title: Development and Application of Criticality Safety Software for Licensing Review]

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23. **M. E. Dunn** and L. C. Leal, "A Monte Carlo Approach to Calculate Probability Tables for the Unresolved-Resonance Region Using the AMPX Cross-Section Processing System," in *Proc. of International Conference on Nuclear Data for Science and Technology: Embracing the Future at the Beginning of the 21<sup>st</sup> Century (ND2001)*, October 7–12, 2001, Tsukuba, JAPAN.
24. N. M. Greene and **M. E. Dunn**, "The AMPX-2000 Operating System for Producing Continuous Energy and Multi-Group Cross-Sections from Basic Data Libraries Using the ENDF/B-6 Formats," in *Proc. of International Conference on Nuclear Data for Science and Technology: Embracing the Future at the Beginning of the 21<sup>st</sup> Century (ND2001)*, October 7–12, 2001, Tsukuba, JAPAN.
25. **M. E. Dunn** and B. T. Rearden, "Application of Sensitivity and Uncertainty Analysis Methods to a Validation Study for Weapons-Grade Mixed-Oxide Fuel," 35666.pdf in *Proc. of 2001 ANS Embedded Topical Meeting on Practical Implementation of Nuclear Criticality Safety*, November 11–15, 2001, Reno, NV.
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29. **M. E. Dunn**, "Computational Experience with the Reich-Moore Resolved-Resonance Equations in the AMPX Cross-Section Processing System," *Nucl. Sci. Eng.* **142(1)**, 48–56 (September 2002).

30. **M. E. Dunn** and L. C. Leal, “Calculating Probability Tables for the Unresolved-Resonance Region Using Monte Carlo Methods,” 11C-03.pdf in *Proc. of International Conference on the New Frontiers of Nuclear Technology: Reactor Physics, Safety and High-Performance Computing (PHYSOR 2002)*, October 7–10, 2002, Seoul, KOREA (October 2002). **Also, will be published in Nucl. Sci. Eng. (2003).**

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32. **M. E. Dunn**, N. M. Greene, and L. M. Petrie, “Continuous-energy Version of KENO V.a for Criticality Safety Applications,” pp. 439-446 in *Proc. of The 7<sup>th</sup> International Conference on Nuclear Criticality Safety (ICNC2003)*”, October 20-24, 2003, Tokai-mura, Japan.