

NUCLEAR ENERGY RESEARCH INITIATIVE

1. INTRODUCTION

The Department of Energy (DOE) created the Nuclear Energy Research Initiative (NERI) to sponsor nuclear energy science and technology research and development in order to address and help overcome the principal barriers to the future use of nuclear energy in the United States. NERI will also help preserve the nuclear science and engineering infrastructure within our nation's universities, laboratories, and industry and will advance the development of nuclear energy technology, enabling the United States to maintain a competitive position worldwide. DOE believes that in funding creative research ideas at the nation's science and technology institutions and corporations, solutions to important nuclear issues will be realized and a new potential for nuclear energy will emerge in the United States.

The Nuclear Energy Research Initiative Annual Report serves to inform interested parties of progress made in NERI on a programmatic level, as well as research progress made in individual NERI projects during the initial year of the program.

Section 2 of this report provides background on the events that led to the creation and implementation of NERI, a discussion of the goals and objectives of NERI, the NERI research focus areas, as well as information on the management of the program.

Section 3 provides a summary of NERI's fiscal year (FY) 1999 awards and accomplishments, FY2000 awards and accomplishments, and FY2001 planned activities.

Sections 4 through 7 provide an index and research summary of the individual FY1999 NERI projects. These reports discuss NERI projects that have advanced sufficiently to enable the Department to report their progress. Research objective, research progress to date, and planned activities for the next research phase is described for each of the funded projects.

Finally, an index and abstracts for each of the FY2000 research awards can be found in Section 8.