

## **Executive Summary:**

The first decade of the twenty-first century has seen a sharp increase in the number of undergraduate nuclear engineering and health physics (NE&HP) degrees awarded. This trend is not yet reflected in MS and PhD graduation rates in the field. Moreover, even as demand for graduate degree holders is poised for a steep increase, competition has held flat the number of NE&HP MS and PhD graduates pursuing careers with DOE, the NRC and the utilities. Government and industry are thus facing a difficult recruitment environment.

The graduate fellowships offered through the institutions receiving this award will mitigate this shortfall by establishing a *steady and reliable* pipeline of graduate degree holders to the NE&HP job market. Universities are strongly positioned to host Fellows if they are building upon an already-proven track record of placement of graduates with utilities, the DOE and the NRC.

The Nuclear and Radiation Engineering Program at The University of Texas at Austin has been educating engineers since 1957. The Program maintains a strong commitment to graduate education in nuclear engineering, health physics and radiochemistry, having awarded thirty-two MS and PhD degrees during 2006 through 2008. A large majority of these graduates have gone on to pursue employment with the national labs, NRC and utilities. Moreover, many of our graduates were placed in this pipeline while still students via summer and semester research assistantships. This already-established pipeline would be strengthened and augmented by the proposed Fellowships which will support part or all of the graduate studies of five students.

The Fellowship program at UT-Austin will be utilized as a recruitment tool for our program and heavily publicized in graduate application and recruitment materials. The Fellowships will be awarded on a competitive basis, with application, application evaluation and performance monitoring infrastructure created within the NRE Program. Only current or entering graduate students meeting rigorous academic criteria will be eligible to apply.