Revised Executive Summary
University of Texas at Austin

We propose to develop, publicize and teach a one-month **Summer Nuclear Engineering Institute** at The University of Texas at Austin. The Institute will serve undergraduates from outside of UT-Austin who are pursuing a degree in a discipline other than nuclear engineering (NE) as well as those who are working toward NE degrees at schools without a research reactor. Since industrial and regulatory employers will indubitably continue to require many new staff whose areas of expertise lie outside of the classical nuclear engineering disciplines, we are especially interested in reaching out to students who will fill these roles.

The primary objective of the Institute is therefore to impart upon future nuclear professionals, including those from non-nuclear academic disciplines, the practical skills they will need when working in proximity to a nuclear reactor or in an environment where radiological hazards are present. The 1 Megawatt JJ Pickle TRIGA reactor at UT-Austin will therefore play a central role in the Institute curriculum, as will the health physics instrumentation maintained at the UT-Austin Nuclear Engineering Teaching Laboratory. The strong practical and experimental component of the Institute curriculum will be complemented by classroom lectures providing a sound grounding in the fundamentals of health physics, nuclear reactor physics and nuclear systems engineering.

We aim to enroll sixteen students in the Institute, which will take place in June 2009. The students will be drawn from Texas institutions not offering undergraduate NE programs as well as Big 12 schools lacking research reactors. Institute graduates will receive room and board, a stipend, and six UT-Austin course credits that may be freely transferred to their home institution. Moreover, the graduates will have gained rare and valuable hands-on experience that will serve to enhance their employment value within the nuclear industry – and, we anticipate, sharpen their desire to pursue nuclear careers. We envision the institute as a recurring enterprise and, leveraging the success of its first year, will aggressively seek additional funding to help establish the Institute as a prestigious centerpiece of our educational programs.

The Institute aims to increase enrollee awareness of job opportunities in nuclear related industries and to facilitate the transition of its graduates into nuclear careers. Leveraging our contacts within utilities and the regulatory agency, in particular our recent graduates who are now employed at the Nuclear Regulatory Commission in Arlington, TX and Rockville, MD, we will continue to assist the Institute graduates through the remainder of their undergraduate programs. Specifically, we will provide guidance, utilize contacts, facilitate the arrangement of interviews, and ease the students' paths to fruitful careers in the field.