Executive Summary

Interdisciplinary Nuclear Power Engineering and Contemporary Health Physics

Project Objectives and Impact: The proposed project will result in the delivery of innovative curriculum within two courses: (1) the formation of a unique industry-university team-taught (online) course focusing on *interdisciplinary* nuclear power operations, and (2) the development of *contemporary* virtual laboratory experiments and simulation modules for an existing health physics and radiological engineering course. The interdisciplinary nature of the nuclear power plant operations course will provide the capability to educate engineers and scientists in a variety of fields, including chemical engineering, chemistry, civil engineering, electrical engineering, environmental engineering, mathematics, materials engineering, mechanical engineering, nuclear engineering, and physics. The extension of the course audience to a wide variety of majors will serve to insure that the nuclear power industry workforce is poised to conduct operations in a safe, secure and environmentally sound manner. Likewise, the situations that health physicists may encounter are evolving, and to meet such an evolution requires curriculum changes to include contemporary issues such as high-level waste transport, and response to accidents and intentional acts of terrorism.