

Development of a Distance Education Course Sequence on Probabilistic Risk Assessment and Fire Protection

Executive Summary

Five Big 12 Engineering Consortium partners propose to design and produce a sequence of two related undergraduate distance education courses that address reliability, risk assessment, and fire safety at nuclear power plants. The benefits will be that undergraduate students from many universities will be exposed to material that will better prepare them to design, safely operate, maintain, and regulate nuclear facilities, as well as to articulate the risks and benefits of nuclear technology.

This proposal addresses the need to train undergraduate engineering students in the general areas of reliability, risk analysis, probabilistic risk assessment (PRA), and fire safety. Toward this end, a collaboration of five universities has been formed that proposes to develop a two-course sequence of undergraduate-level courses that will prepare students in the above mentioned areas. In order to reach as many students as possible, these courses will be developed in a distance-education format and offered online, initially through the Big 12 Engineering Consortium and then more broadly. The proposal is submitted by Kansas State University, but the work will be conducted with the help of Iowa State University, Oklahoma State University, University of Missouri-Columbia, and University of Texas-Austin. A productive collaborative arrangement has been developed with each university supplying critical input based on that university's unique capabilities.

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