

Nuclear Engineering Emphasis at Washington State University

Executive Summary

Washington State University (WSU) proposes to continue the development of a Nuclear Engineering Emphasis within its College of Engineering and Architecture, led by its urban campus faculty at Richland, Washington. The emphasis is comprised of a regular offering of specific courses as well as new modules for existing courses pertaining to engineering applications in the nuclear field, with specific coverage of nuclear safety, security, and environmental protection. The PI and co-PI are currently supported for a first year of effort which has attracted students both at WSU's urban campus at Richland and its main campus at Pullman. An advisory committee has been convened and is actively supporting the project; this group has urged the institution of a regular seminar series ("Nuclear Fridays") resulting in popular public seminars related to activities in local nuclear enterprises. The requested funding would support the second year's course offerings as well as development of a proposal for a Nuclear Engineering Certificate in the WSU College of Engineering. The proposed nuclear emphasis, and the certificate option, will benefit students who wish to pursue employment opportunities in the extensive local engineering enterprises related to nuclear power production, security and safeguards, waste treatment, fuel processing, and medical isotope production. Nuclear industry employers of WSU graduates—mostly in the area near Richland, Washington, which encompasses the Hanford nuclear reservation—will directly benefit. These courses will also benefit working engineers with non-nuclear educational backgrounds; they will be scheduled in late afternoon and evenings and include parallel webstream delivery especially to accommodate these non-traditional students. The requested support is being matched by institutional and local industry support in various forms; with the requested second-year funding, the initiative should transition to a stable, sustainable activity.