



Enhancing Nuclear Education and Training at Aiken Technical College

Applicant Name: Aiken Technical College

Project Director/Principal Investigator: Dr. Joy Watson

ABSTRACT:

Aiken Technical College (ATC) is a two-year public institution located in a predominately rural area of South Carolina which offers associate degrees, career-related certificates and diplomas, and short-term non-credit education to students from surrounding counties in both South Carolina and Georgia. The college works extensively with local industry and employers to ensure that programs include education and training that matches industry needs, particularly in STEM and technical fields, so that students can easily move from completion of their academic program into productive employment. Programs relevant to the needs of the local nuclear industry are a particular area of focus for the College due to its location in the center of a concentration of nuclear utilities and installations in Georgia, as well as South and North Carolina. ATC is not only located next to the Savannah River Site and its complex of nuclear facilities, but is also within 60 miles of each of the only four new commercial nuclear reactors under construction in the United States. As a result, ATC's nuclear programs and the support that they provide to the nuclear industry are of major importance not only to the industry but also to the economy and workforce development of the entire region. This proposal seeks support for advanced training equipment needed for ATC to maximize the value of its nuclear-related training programs to local industry and to develop the highly trained workforce necessary for the development of the region.

The area nuclear industry needs additional workers trained to industry requirements in the areas of electronics engineering technology (EET); industrial maintenance technology (IMT); nuclear quality systems (NQS) and radiation protection technology (RPT) and has committed in writing to assist ATC to produce graduates in these areas to meet the local need. Savannah River Contractors, in particular, are willing to assist with equipment, provision of instructors and subject matter experts, participation in advisory board and curriculum development, loan/gifts of equipment, and hiring of graduates. To maximize this opportunity for local students, ATC requires the installation on campus of a flow loop trainer which will require resources above those available presently to the College. DOE support for the \$245,000 required for this trainer will enable ATC to effectively meet nuclear workforce needs and to provide employment with a future to hundreds of area residents for decades to come.

The need for the equipment requested here to support these programs is based upon clear evidence from area nuclear industry employers. Aiken County is home to the Department of Energy's Savannah River Site, which contains the NRC-licensed Mixed Oxide Fuel Fabrication facility and the Salt Waste Processing Facility, both of which are currently under construction. The MOX facility alone will create 146 highly-skilled technician positions in the next five years. These positions include startup technicians, maintenance technicians, and instrumentations and control technicians. In addition, this facility will need quality assurance technicians and various types of other technical specialists. These positions are in addition to the new positions which will be required by the expansion of the Vogtle and V.C. Summer nuclear utility complexes, which will further increase the local need for STEM graduates.