



Savannah River
Nuclear Solutions, LLC
A Fluor Daniel Partnership

Vision and Development of the Aiken Technical College Radiological Protection Technician Program

H. J. (Jim) Stafford, CHP, PE
SRNS Radiological Protection Director
September 15, 2010

Presented at 2010 DOE ISMS Conference

Dilemma

- Significant shortage of Radiological Protection personnel, especially Technicians, recognized as “Human Capital Crisis” by Health Physics Society and other groups in 2006 timeframe.
- Two dominant themes driving shortage is both DOE and NRC environment – aging work force and resurgence of commercial nuclear power.
- Compounding problem is that the number of colleges and universities offering Radiological Protection degrees had dropped dramatically from 1980 to 2005.
- SRS is no different – our average age of Radiological Protection personnel is 54, meaning over half of our group can retire in less than 5 years (several hundred retirees projected).

Vision

- April 2007 - SRS Senior Management and Aiken Technical College (ATC) President agree that a Radiological Protection (Radcon) Technician training program is needed, and I was asked to help make it happen.
- May 2007 - SRS provides to ATC the site Radiological Control Inspector (RCI) training job and task analysis, as well as RCI task matrix.
- August 2007 - ATC job profiler visits SRS to interview RCI incumbents, and observe RCI classroom and mockup training. **SIGNIFICANT EMPLOYEE ENGAGEMENT TROUGHOUT THIS PROCESS.**
- September 2007 - SRS provides 5 year RCI needs analysis to support ATC Department of Labor (DOL) grant application.

Vision cont.

- September 2007 - SRS provides ATC list of equipment and supplies necessary to stock nuclear labs as part of program.
- December 2007 - SRS provides ATC \$200,000 grant to help establish Radcon Technician program.
- December 2007 - February 2008 - SRS and ATC personnel finalize conceptual model of program, including accreditation process.
- February 2008 - Dean of ATC Technical Education and I travel to Linn State in Mexico, Missouri and the University of Missouri, Columbia, to benchmark their Radcon Technician programs and nuclear labs. Linn State provides curriculum as part of their DOL grant agreement.

Vision cont.

- February 2008 – Inaugural meeting of ATC Radcon Technician Advisory Board held. Eight nuclear industry partners and four universities are charter members of board.
- May 2008 – ATC Dean of Technical Education and I benchmark South Carolina State in Orangeburg, S.C. to review their nuclear labs.
- August 2008 – Curriculum for ATC agreed to - 29 credit hours for certificate, 60 credit hours for AS degree. Universities on Advisory Board agree to allow 60 hours of AS degree to count toward a four year BS degree at their schools for either HP or NE.

Vision cont.

- August 2008 – First classes start with ~45 students, one full time professor and two adjunct professors
- February 2009 – SRS loans ATC 44 portable rad survey instruments to augment ATC nuclear labs.
- Summer 2009 – SRS American Recovery and Reinvestment Act (ARRA) provided \$200,000 for “fast track” program.
- Summer 2009 – SRS provided ATC with “loaned executive” for two years to be Radcon Technician program coordinator.

Why So Successful?

- Commitment on part of industry partners.
- Commitment on part of ATC.
- Commitment on part of individuals. Many hours spent after normal work hours helping get program started.
- Intern positions – all placed as interns
- Hiring – all hired thus far
- Two years after program start-up, largest of kind in nation.
- Employee engagement – Trainers, RCI incumbents, ATC graduates
- In summary, the development of the ATC Radcon Technician program is a win/win/win for the nuclear industry, ATC, and the students.