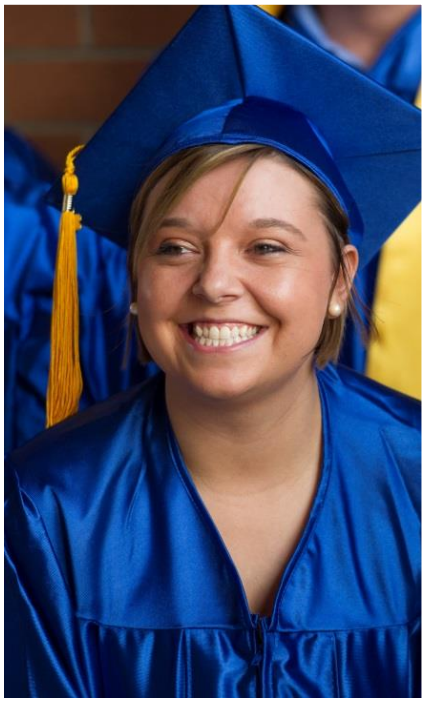

Nuclear Related Educational Programs at Aiken Technical College

Governor's Nuclear Advisory Committee

April 10, 2014

Dr. Susan A. Winsor

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Associate Degrees

- Radiation Protection Technology
- Nuclear Quality Systems
- Welding

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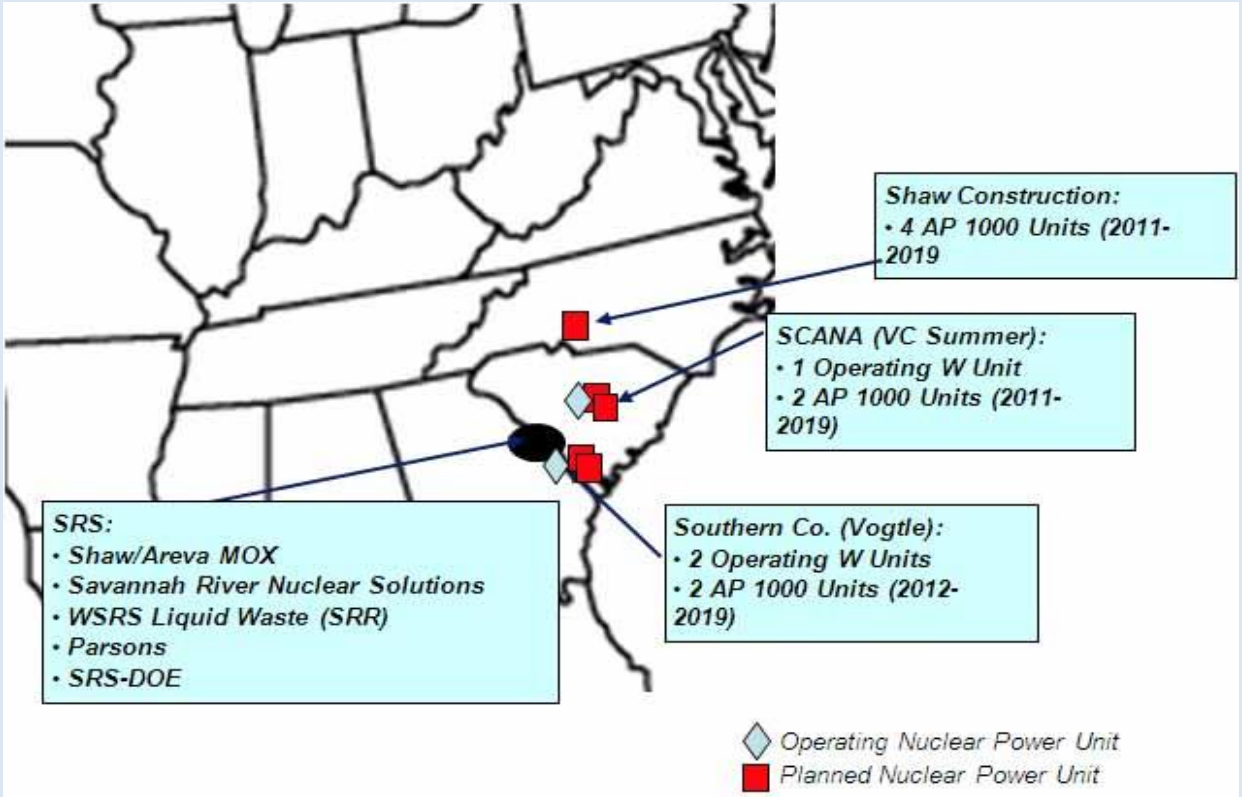
Nuclear Workforce Initiative



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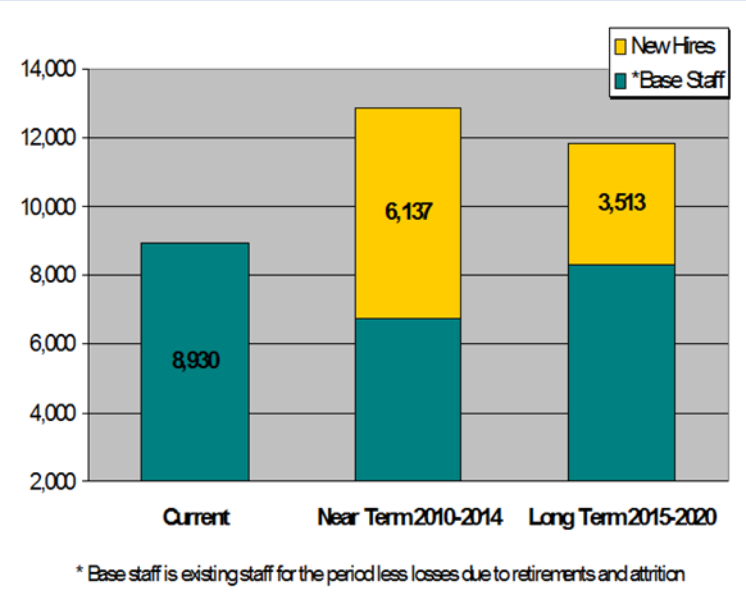
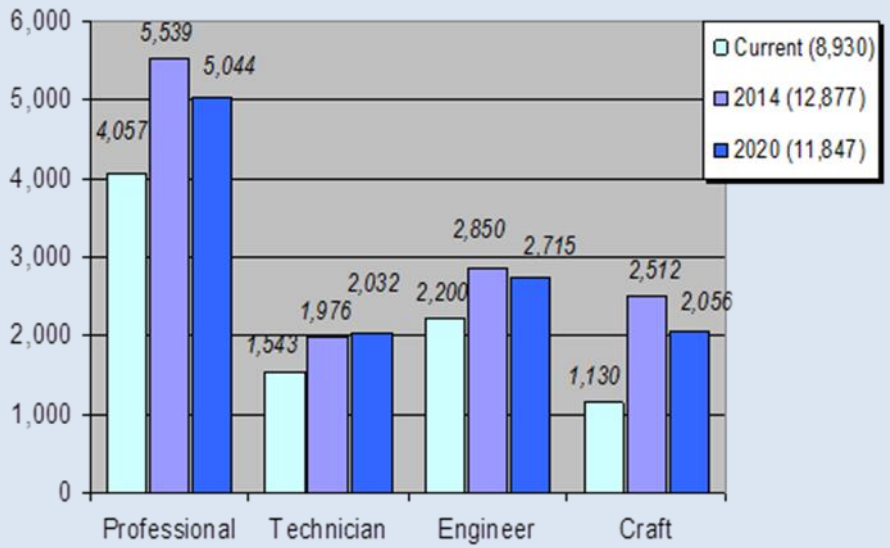
Nuclear Workforce Initiative

Long-Term Nuclear Skill Needs Defined





Nearly 10,000 Nuclear Workers Needed

SOURCE: Booz Allen Hamilton Workforce Study
Commissioned by: The SRS Community Reuse Organization

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Sample Advisory Committees Membership

Company Represented:

- U.S. Department of Energy
- Savannah River Remediation (Chair)
- Savannah River Nuclear Solutions
- TVA
- National Defense Board
- SCANA
- CHPRC Quality Systems
- AMEC
- Gerdau-Charlotte Rebar Fabrication
- Southern Calibration & Services
- Quality Solutions System One
- Chicago Bridge and Iron
- Mitsubishi Nuclear Energy Systems
- Thomas Ritt Consulting
- American Society for Quality

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Radiation Protection Technology

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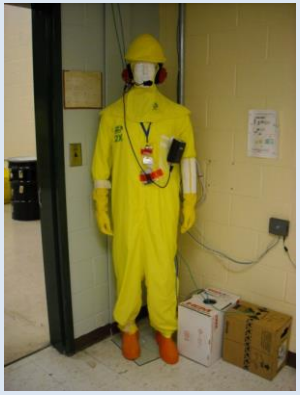
ATC Radiation Protection Technology Present



2008	CAS.RadCon (Certificate)
2008 – 2009	Established “Fast-Track” program in cooperation with Savannah River Nuclear Solutions (SRNS)
2009	AAS.RPT (Associates) School registered with NEI-NUCP – SCANA as primary sponsor

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ATC Radiation Protection Technology Present

August 2011	Completed the NEI-NUCP Process and the First NUCP Certificate Issued
2012 - Present	Serving in the NUCP RPT Regional Advisory Group Serving in the RCNET Effort

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Core Curriculum

Radiation Protection Technology Courses	
RPT – 101	Introduction to Radiation Protection
RPT – 103	Radiation Fundamentals
NET – 105	Reactor Components and Systems
RPT – 113	Radiation Monitoring
RPT – 223	Radiation Dosimetry
RPT – 233	Radioactive Materials Handling
RPT – 243	Radiological Safety and Response
RPT – 253	Radiation Protection

Industry Focused Courses	
RPT – 290	RPT Internship
RPT – 120	40 hour HAZWOPER – One year certificate
ENG – 160	Technical Communications
ENG – 260	Advanced Technical Communications
EGR – 105	Safety in the Workplace

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Credentials at Graduation

- AAS.RPT
- NUCP Certification
- OSHA – 40 hour HAZWOPER Certification
- Pulmonary Assessment and Fit Test Proven
- The Internship Experience
  - Hands-on, Real-life application
  - Badged at a nuclear facility
  - Seven of the 14 NEI – 03-04 Competencies
- Nuclear Utilities Fundamentals Exam

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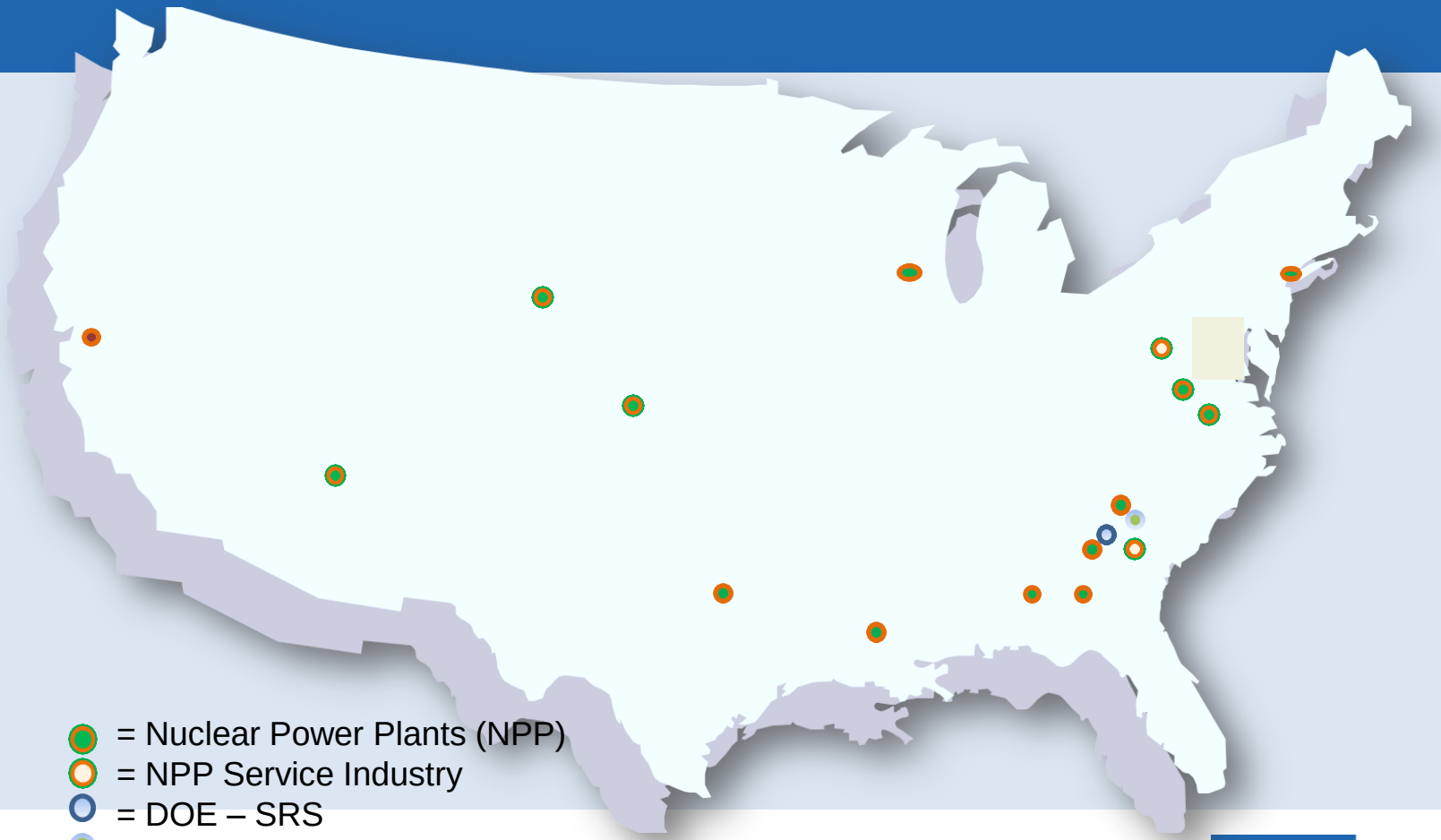
Graduate Placements



= Nuclear Power Plants (NPP)
= NPP Service Industry
= DOE – SRS
= Medical Service Industry
= DOD

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The Road to Excellence

- RCNET
- Expanded Internship Opportunities
- Added Human Performance Tools & Nuclear Culture Piece
- Nuclear Workforce Academy
- Lab Vision
  - Simulated Radiation and Contamination – Expanded Scenarios
- Vision
  - New Facilities
- Student Engagement
  - HPS Student Chapter Industry Meetings

RADIATION PROTECTION TECHNOLOGY

protect public + workers + enviroment

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Nuclear Quality Systems

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Program Mission

Prepare students for careers in the nuclear and manufacturing industries in:

- **Quality Assurance (QA)**
- **Quality Control (QC)**

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NQS Program

Curriculum based on:

- **ACAD 11-002 Non-Accredited Uniform Curriculum Guidelines**
  - **Sponsored by INPO, NEI, and NRC**
- **Developing a Curriculum (DACUM) Results**
  - **Industry partners participating included SCANA, DOE, URS, Energy Solutions, and Trinity Engineering Associates**
- **Department of Energy (DOE) Input**
  - **Based on DOE-STD-2002 Quality Assurance Functional Area Qualification Standard**

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Core Curriculum Courses

Nuclear/Industrial Fundamentals Courses	
EGR – 104	Engineering Technology Foundations
EGR – 105	Safety in the Workplace
EGT – 123	Industrial Print Reading
MTT – 143	Precision Measurements
NET – 105	Reactor Components and Systems
NET – 130	Radiation Protection
NET – 237	Nuclear Safety

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Core Curriculum Courses

Quality Assurance/Quality Control Courses	
NQS – 101	Introduction to Nuclear Quality Systems
NQS – 105	Nuclear Quality Standards and Specifications
QAT – 202	Metrology & Calibration
NQS – 120	Overview of Associated Nuclear Quality Programs
NQS – 110	Introduction to Nuclear Quality Control Inspection
NQS – 111	Introduction to Nuclear Quality Assurance Audits
NQS – 211/221	Mechanical Inspection I/Nuclear QA Auditor
NQS – 212/222	Mechanical Inspection II/Nuclear QA Lead Auditor
NQS – 201/261	Electrical & I/C Inspection I/Nuclear Quality Engineering Principles I
NQS – 202/262	Electrical & I/C Inspection II/Nuclear Quality Engineering Principles II

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Welding

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Welding Milestones

- **Benchmarking Trips**
  - Newport News
  - Shipbuilding
  - Lincoln Electric
  - Loraine Community College
- **New AAS-Welding degree approved – 2012**
  - AWS-SENSE Levels built into new curriculum
  - Welding lab facility design is underway
  - Virtual welder acquired and utilized in new curriculum
  - Additional full-time faculty
  - Plans for an advanced rad-worker component

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Core Curriculum

Welding Courses	
Structural Welding	WLD – 130: Welding Fundamentals WLD – 108: Gas Metal Arc Welding WLD – 111: Arc Welding I WLD – 132: Gas Tungsten Arc Welding
Industry Welding	EGT – 123: Industrial Print Reading IMT – 113: Power Tools IMT – 219: Maintenance Welding WLD – 117: Specialized Arc Welding MTT – 145: Machining of Metals
Nuclear/Pipe Welding	WLD – 141: Weld Quality EGT – 117: Welding Print Principles WLD – 225: Arc Pipe Welding I WLD – 201: Metallurgy WLD – 170: Qualification Welding WLD – 208: Advanced Pipe Welding II

Meeting Workforce Demands

Center for Energy and Advanced Manufacturing

- Capital Campaign at $1.8 million of $2 million goal
- Architecture firm selected and design phase completed
- Will complete design and award construction contract this year

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Meeting Workforce Demands

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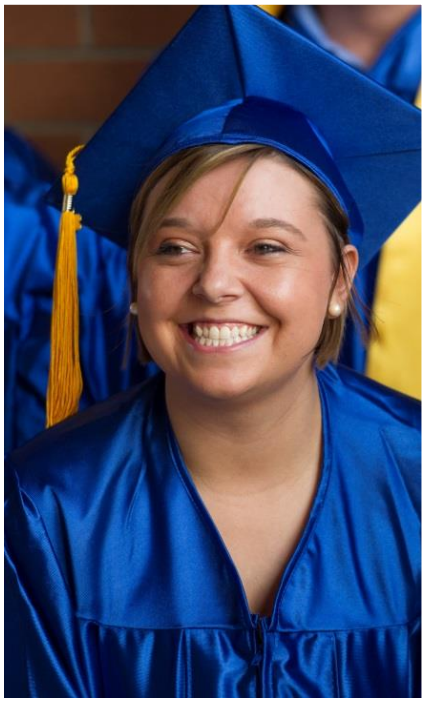

Questions?

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