SOUTH CAROLINA TECHNICAL COLLEGE SYSTEM
New Program Proposal Submission Form

College Name Aiken Technical College

Program Title Associate in Applied Science**, with a major in** Nuclear Quality Systems

CIP Code 150702 **Credit Hours** 64

Academic Unit Technical Education

Implementation Date (Proposed) Fall 2013

Local Area Commission Approval Date: 3/12/2012

Questions about this program proposal should be directed to Dr. Gemma K. Frock

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President's Signature _____ Date _____

CAO Signature _____ Date _____

CBO Signature _____ Date _____

I. Proposal Narrative: Justification

a) State the purpose(s) and objectives of the program. Provide details on the employment for which graduates will be prepared.

Aiken Technical College (ATC) seeks to implement an Associate in Applied Science, major in Nuclear Quality Systems (NQS). The proposed program is based on industry-recognized standards established through the Institute of Nuclear Power Operations. The curriculum addresses the need for qualified nuclear quality control inspectors and nuclear quality assurance auditors in ATC's local service area. Graduates will help companies sustain infrastructure and implement new construction projects.

Upon completion of the program, graduates will be able to:

- Provide program oversight in the role of a Surveillance Specialist, Auditor, Lead Auditor, and Quality Engineer.
- Categorize the roles and responsibilities of a quality program in the culture of the nuclear industry.
- Practice radiological, industrial and nuclear safety and environmental compliance.
- Demonstrate a working knowledge of nuclear quality assurance program standards.

The NQS degree will support local and regional workforce needs created by the presence of four new reactor builds and three existing reactors. Additionally, the program will respond to demands for technicians in the Central Savannah River Area (CSRA), a seven-county region along the South Carolina/Georgia border. The CSRA is home to several nuclear facilities, including commercial, nuclear power stations that are licensed by the Nuclear Regulatory Commission (NRC), in addition to the Mixed Oxide Fuel Fabrication facility at the Department of Energy's Savannah River Site.

b) Explain how the program will support and/or complement the college's mission?

ATC is a public, open-door, two-year, comprehensive institution of higher education established to provide citizens of greater Aiken County opportunities for educational, economic, professional, social and personal development. The college educates and trains students to provide an effective workforce to support economic growth and community development through its focus on teaching and service. The proposed NQS degree program directly impacts this mission by preparing students to be qualified nuclear quality systems technicians that become an integral component in the local and regional economy and workforce.

c) Discuss general student interest in the program.

The proposed program will provide a career path that does not currently exist for students in the ATC service area. The college expects significant student interest in the program, particularly due to the recent approval from NRC for Plant Vogtle within the CSRA. The NQS degree will also be of interest to students enrolled in welding, industrial maintenance, and engineering technology, and nuclear-related programs.

d) Discuss local, state, and national employment trends for program-specific occupations. Include full-time and part-time wage information at the state and regional/national level.

The US Department of Labor, Bureau of Labor Statistics Occupational Outlook Handbook 2010-2011, states that nuclear technicians should grow by 9 percent nationally between 2010 and 2020. The growth is attributed to the need to monitor the nation's aging fleet of nuclear reactors and research future advances in nuclear power. Energy demand has recently renewed interest in this form of electricity generation. Technicians will be needed to work in defense-related areas, to develop nuclear medical technology, and to improve and enforce waste management and safety standards. The number of jobs in Nuclear Technician field is expected to increase from 7100 to 8000 from the years 2010 to 2020.

A targeted study of workforce needs has confirmed the potential for a worker shortfall in the CSRA. In June, 2009, the Savannah River Site Community Reuse Organization (SRSCRO) initiated a nuclear workforce study to obtain reliable estimates of the need for new nuclear workers at the Savannah River Site and other nuclear-related industries and facilities in the CSRA. The study, conducted by Booz-Allen-Hamilton, indicated a need for 164 quality assurance and nuclear quality systems personnel by 2020; 101 of these will be needed by 2014. A subsequent validation study involving SRSCRO's Nuclear Workforce Initiative (NWI) employer participants ranked quality assurance as the primary need following operators (NWI Staffing Committee). The study focused upon the SRSCRO region; however, the study acknowledged that there are 16 current nuclear power units and plans to build as many as eight more in neighboring regions. These facilities are close enough to the SRSCRO region that they will compete for trained nuclear workers, which compounds the urgent challenge to train job-ready graduates for nuclear-related industries.

According to the most recent data from the US Department of Labor, Bureau of Labor Statistics, the mean annual salary for nuclear technicians in SC was $63,000 and $30 per hour. This is consistent with the national average of $67,000 annually and $32 per hour.

e) Include a list of all related existing programs within the institution. Compare/contrast the proposed program to related programs.

ATC currently offers four nuclear technology certificates – Nuclear Quality Assurance Auditing, Nuclear Quality Engineering Principles, Mechanical & Nuclear Quality Control Inspection, and Electrical & I/C Nuclear Quality Control. Enrollment is expected to grow and student interest is strong in each of these areas. Coursework from each of the certificates will transfer into the proposed associate degree.
It should be noted that ATC currently offers an Associate in Applied Science, major in Radiation Protection Technology (RPT). The advisory committee feels strongly that the objectives of the

proposed NQS degree are vastly different from the RPT program. The nuclear field has a specific set of quality standards that differ from the quality management, process continuous improvement, lean processes, and other quality initiatives.

f) Compare/contrast the program to those with similar objectives at other SC technical colleges. Where possible, summarize enrollment, graduates, and placement rates for existing programs. This information can be found in the State Board's annual Program Evaluation Report.

There are no similar programs offered in the SCTCS. The nearest programs that offered similar curriculum were Chattanooga State Community College in Tennessee, and Central Piedmont Community College in North Carolina.

g) Discuss any existing articulation or collaborative agreements in related program areas with other SC technical colleges.

There are no formal plans for articulation with other technical colleges at this time. However, students enrolled in the NQS program will receive transfer credit for coursework taken at another technical college within the SCTCS.

h) Indicate whether this is a terminal degree program (occupational in intent). If there is potential for students to transfer into a baccalaureate program, provide narrative on the progress to date concerning articulation agreements with potential transfer institutions.

The proposed degree is designed primarily as a terminal degree leading to employment upon graduation.

i) Briefly summarize/analyze the needs survey results. For at least a three-year period, estimate the anticipated number of full-time and part-time openings. Discuss any specific employer interests and support for the program.

The nuclear employers are committed to the development of the proposed NQS program as evidenced by their commitment to the already formed NQS Advisory Committee. The Advisory Committee is comprised of 15 members representing the Savannah River Site contractors, the Commercial Nuclear power sector, and nuclear vendors.

The support of the advisory committee and local employers is further evidenced in the results of the local needs assessment. Results showed the need for a total of 39 full-time technicians within the college's service area over the first three years of the program (i.e., 15, 18, and 6 in years one, two, and three, respectively).

II. Proposal Narrative: Enrollment

a) Explain the program admissions criteria.

Admission to the proposed NQS program will be limited to those students who are determined college ready through performance on the reading, writing, and mathematics sections of the COMPASS. Those students who test into remedial studies will be referred to the first-year experience advising center.

b) State the anticipated total number of enrollment for the first year of the program. Include the total number of transfer students from other internal programs and new students to the institution. Provide the estimated attrition rate and explain possible causes of attrition. Also include the anticipated number of graduates from the program.

Anticipated Total Enrollment:20 Total # of Transfer: 5 Total # of New: 15

Estimated Attrition Rate: 40%

Estimated Graduation Rate: 60% (12 graduates)

Estimates above are based on current student performance in the Associate in Applied Science, major in Industrial Maintenance Technology (IMT). The level of math, reading, and English are in line with the AAS-IMT program and rigor of program is in line with AAS-IMT. Possible causes of attrition include a combination of issues including lack of student preparedness, personal issues, and rigor of material.

c) **Based on the information above, complete enrollment tables A and B below.**
Note: Table B should include enrollment numbers for new students only.

TABLE A: PROJECTED TOTAL ENROLLMENT						
YEAR	FALL		SPRING		SUMMER	
	HEADCOUNT	CREDIT HRS	HEADCOUNT	CREDIT HRS	HEADCOUNT	CREDIT HRS
2013	20	300	16	240	14	42
2014	32	480	28	420	14	42
2015	32	480	28	420	14	42

TABLE B: ESTIMATED ADDITIONAL ENROLLMENT (NEW STUDENTS ONLY)						
YEAR	FALL		SPRING		SUMMER	
	HEADCOUNT	CREDIT HRS	HEADCOUNT	CREDIT HRS	HEADCOUNT	CREDIT HRS
2013	15	225	12	180	11	33
2014	24	360	21	315	11	33
2015	24	360	21	315	11	33

III. A) Curriculum Display

TABLE C: PROPOSED SEMESTER LAYOUT					
1st Semester – Fall					
Prefix	**Number**	**Course Title**	**Lecture**	**Lab**	**Credits**
• MAT	155	Contemporary Mathematics	3	0	3
• PHI	110	Ethics	3	0	3
• ENG	160	Technical Communications	3	0	3
• NQS	101	Introduction to Nuclear Quality Systems	3	0	3
• NQS	105	Nuclear Quality Standards and Specifications	3	0	3
Total Semester Hours			**15**	**0**	**15**
2nd Semester – Spring					
Prefix	**Number**	**Course Title**	**Lecture**	**Lab**	**Credits**
• PSY	105	Personal/Interpersonal Psychology	3	0	3
• EGR	104	Engineering Technology Foundations	2	3	3
• EGR	105	Safety in the Workplace	1	0	1
• NET	105	Reactor Components and Systems	3	0	3
• NET	130	Radiological Protection	2	3	3
• NET	237	Nuclear Safety	2	0	2
Total Semester Hours			**13**	**6**	**15**
3rd Semester – Summer					
Prefix	**Number**	**Course Title**	**Lecture**	**Lab**	**Credits**
• CPT	101	Introduction to Computers	2	3	3
Total Semester Hours			**2**	**3**	**3**
4th Semester – Fall					
Prefix	**Number**	**Course Title**	**Lecture**	**Lab**	**Credits**
• EGT	123	Industrial Print Reading	2	0	2
• MTT	143	Precision Measurements	1	3	2
• QAT	202	Metrology & Calibration	2	3	3
• NQS	120	Overview of Associated Nuclear Quality Programs	2	3	3
• NQS	110	Introduction to Nuclear Quality Control Inspection	2	3	3
• NQS	111	Introduction to Nuclear Quality Assurance Audits	2	3	3
Total Semester Hours			**11**	**15**	**16**
5th Semester – Spring					
Prefix	**Number**	**Course Title**	**Lecture**	**Lab**	**Credits**

TABLE C: PROPOSED SEMESTER LAYOUT					
• ENG	260	Advanced Technical Communication	3	0	3
• NQS	211/221	Mechanical Inspection I/Nuclear Quality Assurance Auditing I	2	3	3
• NQS	212/222	Mechanical Inspection II/Nuclear Quality Assurance Auditing II	2	3	3
• NQS	201/261	Electrical and I/C Inspection I/Nuclear Quality Engineering Principles I	2	3	3
• NQS	202/262	Electrical and I/C Inspection II/Nuclear Quality Engineering Principles II	2	3	3
Total Semester Hours			**11**	**12**	**15**
PROGRAM TOTALS			**52**	**36**	**64**

b) If applicable, provide the course title and description for all new courses that will be added to the college's local catalog. Place an asterisk (*) beside those that will also be new to the SBTCE Statewide CAC.

EGR 104 Engineering Technology Foundations - This problem-based course introduces the student to fundamental concepts of electrical, mechanical, thermal, fluids, optical, and material systems related to engineering technology. Workplace readiness skills such as laboratory safety, communications, and teamwork are integrated into the course.

NET 130 Radiological Protection - This course is a study of basic radiological protection principles. Topics include detectors, basic nuclear instrumentation, portable survey equipment and related topics in radiation protection protocols.

NET 237 Nuclear Safety - This course explains the basic concepts related to nuclear protection, accident analysis, transient prevention and mitigation of damage and accident management. Topics provide a summary of basic information about major industry operating experience and accident case studies.

***NQS-101 Introduction to Nuclear Quality Systems** - This course is a study of the basic principles of a quality program to include terms, functions and requirements of the various aspects of quality. Topics include the importance of proper quality assurance and control; organizational independence; basic responsibilities, duties, and authority.

***NQS-110 Introduction to Nuclear Quality Control Inspection** - This course addresses the basic application of a Quality Control inspection program. Topics include the importance of proper quality program; qualification requirements; responsibilities and authority; document control and records; corrective actions and the control of nonconforming items.

***NQS-111 Introduction to Nuclear Quality Assurance Audits** - This course develops a basic understanding of the purpose, roles and responsibilities of a quality assurance audit. Topics include planning and scheduling, checklists, communication with audited organization, collection and evaluation of evidence, corrective action, reporting.

***NQS-105 Nuclear Quality Standards and Specifications** - This course is a survey of codes, standards, and specifications typical of the nuclear industry.

***NQS-120 Overview of Associated Nuclear Quality Programs** - This course covers collateral quality functions outside of standard maintenance activities. Topics include environmental qualifications, procurement requirements, material control, fire assemblies, nondestructive examinations, document control and records management.

*__NQS-201 Electrical and I&C Inspection I__ - This course covers basic quality control inspection concepts related to Electrical and I&C maintenance activities. Topics include electrical safety, test equipment, basic fundamentals, and upgrading/downgrading circuits.

*__NQS-202 Electrical and I&C Inspection II__ - This course covers quality control inspection oversight related to specific Electrical and I&C activities. Topics include conduits, cable pulling, equipment installation, preventative maintenance programs, supports and electrical boxes, batteries, chargers, transformers, AC Generators, and motors.

*__NQS-211 Mechanical Inspection I__ - This course provides the student with a basic understanding of a variety of mechanical components. Topics include mechanical fasteners, pumps, valves, hangers, supports, restraints and snubbers.

*__NQS-212 Mechanical Inspection II__ - This course introduces the student to a variety of mechanical inspection activities including piping, hydrostatic testing, flow elements/orifices/filters, rigging, turbines, heat exchangers, generators, alignment, installation, removal, and preventive maintenance of equipment.

*__NQS 221 Nuclear Quality Assurance Auditor__ - This course provides a basic understanding of the quality assurance surveillance process, including the various types of observations, the purpose and use of checklists, the different types of objective evidence, and the process used for the review of records and controlled documents.

*__NQS 222 Nuclear Quality Assurance Lead Auditor__ - This course provides a basic understanding of quality assurance audit processes including roles and responsibilities of audit team, independence of the audit team, planning, scheduling, and communicating with audited organization, collecting and evaluating evidence, and preparation of audit report.

*__NQS 261 Nuclear Quality Engineering Principles I__ - This course develops a basic understanding of the purpose of a Quality Engineering program including development and operation of quality control systems, application and analysis of testing and inspection procedures, and the use of metrology and statistical methods.

*__NQS 262 Nuclear Quality Engineering Principles II__ - This course builds on the basic understanding of the purpose, roles and responsibilities of a Quality Engineering program with topics that include quality organization and management, the human dimension of quality, quality planning, quality and the law, designing experiments, and risk management.

__QAT 202 Metrology & Calibration__ - This course covers the measuring instruments used in a typical industrial metrology laboratory. Techniques of making measurements, accuracy and precision, and calibration control systems are stressed.

c) Provide a brief explanation of the planned assessments of student learning outcomes that will be used.

Student learning assessments will consist of hands-on, scenario-based activities to demonstrate skill attainment combined with written and verbal analysis of a written scenario. Quizzes, homework, examinations, presentations, written reports, and verbal reports will complement the assessment portfolio. The type of assessment will depend on the learning outcome and expected performance level.

d) If the program requires clinical support, provide narrative demonstrating that the college has secured commitments from service area employers to support an adequate number of clinical/work experience sites (i.e. should meet the needs of the number of students displayed in the enrollment charts).

No clinical experiences are required. However, internships will be highly recommended and several advisory committee members have supported the possible development of an internship program.

IV. Proposal Narrative: Faculty

a) List all administration, faculty, and staff positions that will support the program. Do NOT include individual names. Instead, list the position title and indicate if it is a new or existing position. Explain any changes or additions to existing positions (e.g. shared department heads, administrative assistants, etc.)

- Administration
  Department Chair for Industry & Skilled Trades – existing
  Dean of Technical Education - existing

- Faculty
  NQS Faculty Member – new – this position will serve in a lead instructional role
  RPT Faculty Member – existing
  EGR Faculty Member – existing
  IMT Faculty Member - existing

- Staff
  Administrative Assistant – existing
  Lab Technician - existing

  The existing personnel listed above will take on additional responsibilities within their assigned areas. The NQS program will be aligned under the Industry & Skilled Trades Department,

b) Complete the chart below outlining required qualifications for each faculty position listed above.

TABLE D: FACULTY QUALIFICATIONS			
List Staff Position by Rank (e.g. Professor #1, Professor #2, Associate Professor #1, etc.)	**Highest Degree Earned**	**Field of Study**	**Teaching in Field (yes / no)**
NQS Instructor	Bachelor minimum	Nuclear or Quality Related	Yes
RPT Instructor	Masters	Radiation Protection Technology	Yes
EGR Instructor\	Masters	Electrical Engineering	Yes
IMT Instructor	PhD	Mechanical Engineering	Yes

c) Discuss institutional plans for faculty development, including, but not limiting discussion to release time for research, consulting, conferences, or curriculum development.

ATC is part of the Center for Nuclear Education & Training sponsored by the National Science Foundation. As a partner, ATC's NQS faculty will sit on the curriculum development committee for quality control/quality assurance. The Center for Nuclear Education & Training is currently developing best practices, faculty professional development, and hosting meetings to develop teaching methods and curriculum materials. ATC faculty will be supported in this initiative with release time and travel funding. In addition, all faculty will have $1000/year available for professional development.

During the initial phases of this project, faculty release time will be given to develop all curriculum related to this project. The release time is funded through a Department of Energy grant for the first five years of program.

d) Provide definitions for faculty full-time equivalents (FTE).

This program is considered a "contact hour" position, therefore the FTE faculty will teach 20-24 contact hours per week per semester.

e) **Complete the chart below to include <u>ALL</u> positions listed in question A.**

Note: All new positions should be placed in the 'New' column and <u>remain</u> in the 'New' column for each subsequent program year. The same applies for all existing positions. A detailed example can be found in the "Faculty" module on T-Web.

TABLE E: UNIT ADMINISTRATION/FACULTY/STAFF SUPPORT						
YEAR	**NEW**		**EXISTING**		**TOTAL**	
	Headcount	FTE	Headcount	FTE	Headcount	FTE
Administration						
2013	0	0	2	2	2	2
2014	0	0	2	2	2	2
2015	0	0	2	2	2	2
Faculty						
2013	1	1	3	3	4	4
2014	1	1	3	3	4	4
2015	1	1	3	3	4	4
Staff						
2013	0	0	1.75	1.75	1.75	1.75
2014	0	0	1.75	1.75	1.75	1.75
2015	0	0	1.75	1.75	1.75	1.75

V. Proposal Narrative: Physical Plant

a) Discuss physical plant requirements, indicating any needs for additional physical plant space within the first three years of program operation. Explain any costs associated with the acquisition of physical plant space for the program.

The addition of the NQS program will require minimal reorganization of existing facilities since the lab-oriented activities needed for the program will be housed in the existing Electrical, Mechanical, Machine Tool, and Radiation Protection laboratories. Given the relative minor equipment and square footage needs of this program, there is sufficient space within these existing program laboratories.

The existing classroom space at ATC will be sufficient to run program at a high quality level.

VI. Proposal Narrative: Equipment

a) Discuss equipment needs for the program and explain the planned sources of funding for equipment.

- Magnetic Particle (Parker Probe Kit) - The DA-200 Contour Probe is a portable, self-contained instrument designed to produce a magnetic field on or within ferro-magnetic materials. It features built-in selective AC and pulsed DC functions, articulating legs and a rugged, molded housing making it ideal for use in the lab, on the factory floor or out in the field. (Budgeted through college operational funds. These are available at $505 per kit plus tax and shipping. The project will require ten of these kits.)

- Olympus/Panametrics 37DL (Ultrasonic Thickness Meter, Olympus) - The Olympus / Panametrics 37DL PLUS is an advanced nondestructive ultrasonic thickness gage that combines powerful measurement features with sophisticated data acquisition and output capabilities for applications involving pipes, tanks, and other metal structures subject to internal corrosion or erosion. The Olympus/Panametrics 37DL Plus Ultrasonic Thickness Gage includes many innovative features that simplify true metal thickness measurements even when the exposed surface is coated or painted. (Funds provided through NRC Grant listed below. These are available at $237 per kit plus tax and shipping. The project will require ten of these kits.)

- Welding Coupons Samples. We will require ten of these at $250 per set and they are available from the American Welding Society. (The $2500 in funds provided through NRC Grant explained in Section IX, question C.)

b) Itemize each piece of equipment that exceeds $5,000.

- Materials Engineering Learning System will enable students to gain hands-on-experience with materials testing, polariscope, data acquisition system, non-destructive testing system, spark testing kit, quality assurance video, a starter specimen set, and materials test set. The Materials Engineering Learning System also includes a student learning activity packet set and assessment guide. ($25,000 budgeted in NRC Grant explained in Section IX, question C.)

VII. Proposal Narrative: Library Resources

a) Provide a quantitative analysis of the current library resources related to the proposed program in adherence to a standard guide (e.g. the ALA Standards for College Libraries). Compare/contrast with the holdings of other institutions who have programs with similar objectives.

The ATC library has 182 print and electronic books in the catalog that cover topics in the proposed program. In addition, ATC has access to electronic books and articles for this program throughout more than 60 different databases.

b) Discuss current library holdings in relation to the proposed program. Provide as many program-specific examples as possible of relevant resources currently available at the institution (e.g. *The Mechatronics Handbook…* for a new Mechatronics program).

The following are examples of Library resources that are relevant to the proposed program. For a complete list of examples for each resource type, please consult the spreadsheet on file at the System Office.

1) Nuclear quality control inspection
    A. The Road Map to Repeatable Success: Using QFD to Implement Change (CRC Press, 1995)

B. Case Studies in Reliability and Maintenance (Wiley, 2003)
C. Applied Science & Technology Full Text (H.W. Wilson)
D. International Journal of Reliability, Quality, & Safety Engineering (World Scientific)

2) Nuclear quality standards and specifications
   A. ASME Boiler and Pressure Vessel Code: an International Code (ASME, 2004)
   B. Functional Safety: a Straightforward Guide to Applying IEC 61508 and Related Standards (Elsevier Butterworth-Heinemann, 2004)
   C. Military & Government Collection (EBSCO)
   D. Test & Measurement World (UBM Canon)

3) Instruments and control technology
   A. The Condensed Handbook of Measurement and Control (ISA, 2004)
   B. Radioisotope Gauges for Industrial Process Measurements (John Wiley & Sons, 2004)
   C. Science Reference Center (EBSCO)
   D. IET Control Theory & Applications (Institution of Engineering & Technology)

4) Nuclear reactor components and systems
   A. Nuclear Power: a Reference Handbook (ABC-CLIO, 2000)
   B. Direct Nuclear Reactions (World Scientific, 2004)
   C. Science in Context (Gale)
   D. Nuclear Power Today (BCC Research)

5) Radiation protection
   A. Essentials of Radiation Biology and Protection (Delmar, 2009)
   B. Radioactive Releases in the Environment: Impact and Assessment (Wiley, 2003)
   C. GreenFILE (EBSCO)
   D. Chernobyl Disaster: Legacy and Impact on the Future of Nuclear Energy (Great Neck Publishing)

6) Nuclear safety
   A. Operational Radiation Safety Training (National Council on Radiation Protection and Measurements, 2000)
   B. Enhancing Occupational Safety and Health (Elsevier Butterworth-Heinemann, 2004)
   C. MasterFILE Premier (EBSCO)
   D. Nuclear Plant Journal (Equipment Engineering & Sales, Inc.)

7) Nuclear quality assurance audits
   A. Quality Assurance Program Requirements for Nuclear Facilities (ASME, 1983)
   B. Surviving an OSHA Audit (Technomic Publishing, 1998)
   C. Academic Search Premier (EBSCO)
   D. Science and Technology of Nuclear Installations (Hindawi Publishing)

8) Nuclear quality engineering principles
   A. Sustainable Nuclear Power (Elsevier, 2007)
   B. Environmental Engineering (Wiley, 2003)
   C. Computer Source (EBSCO)
   D. Nuclear Engineering International (Progressive Media Markets Limited)

c) Explain any costs associated with library resources for the first three years of the program (e.g. books, AV, serials).

The library acquires resources for all academic programs based on current enrollment. The Library Director discusses with faculty what is required to support the research needs of the students in each program and library acquisitions are based on those discussions. Acquisitions for this program will be included in the library's existing acquisitions budget.

VIII. Proposal Narrative: Accreditation, Licensure, or Certification

a) Explain whether the program is subject to specialized or professional accreditation/approval by any state, regional, or national agency (other than the Commission on Higher Education).

There are no specialized accreditation or approvals for this program.

b) If so, discuss plans to seek such accreditation, including the timeline. Estimate any costs associated with the accreditation plans (within the first three years of the program).

N/A

c) Discuss any licensure or certification requirements for graduates and the extent to which the program will prepare graduates for these exams.

Graduates will require certification as specified through the training programs at each nuclear site. This program will prepare them for site-specific certification.

IX. Proposal Narrative: Estimated Costs

a) Complete the chart below to include estimated costs.

TABLE F: ESTIMATED COSTS BY YEAR				
CATEGORY	**1st**	**2nd**	**3rd**	**Totals**
Program Administration	$0	$0	$0	$0
Faculty Salaries	$70,000	$70,000	$70,000	$210,000
Graduate Assistants	$0	$0	$0	$0
Clerical/Support Personnel	$0	$0	$0	$0
Supplies and Materials	$10,050	$2,500	$2,500	$15,050
Library Resources	$500	$500	$500	$1,500
Equipment	$25,000	$0	$0	$25,000
Facilities	$0	$0	$0	$0
Other (Identify) Fringe Benefits, Travel	$32,209	$32,209	$27,455	$91,873
TOTALS	**$137,759**	**$105,209**	**$100,455**	**$343,423**
Tuition Funding	$70,682	$113,792	$113,792	$298,266
Program-Specific Fees	$0	$0	$0	$0
State Funding	$0	$0	$0	$0
Reallocation of Existing Funds	$0	$0	$0	$0
Federal Funding (NRC and DOE)	$292,129	$292,129	$100,000	$684,258

Other Funding (Specify)	$0	$0	$0	$0
TOTALS	**$362,811**	**$405,921**	**$213,792**	**$982,524**

b) Explain any "unique costs" or requirements/requests for special state appropriations will be required or requested?

Not applicable.

c) Identify other funding sources, as noted in the last line of the estimated costs table.

ATC has secured two grants to help with curriculum develop and delivery of the NQS program.

1. Advancing Nuclear Skills Regionally (ANSR) – Department of Energy – Environmental Management /College Program to Increase Non-Traditional Student Enrollment in the Nuclear Science Field
    a. Total DOE Award: $934,688/yr, renewable up to 5 years, Total ATC Award: $200,000/year to support development of Welding and Nuclear Quality program.
    b. Provided by: Aiken Technical College, Augusta State University, Augusta Technical College, University of South Carolina – Aiken, University of South Carolina – Salkehatchie, and SRS Community Reuse Organization (SRSCRO)
    c. Fiscal Agent: SRSCRO

2. Nuclear Quality Systems Technical Education Project (NQSTEP) in Nuclear Quality Systems – Nuclear Regulatory Commission - NRC-HQ-12-G-38-0036
    a. Total NRC Award: $192,129.30 for two years to support instruction salary, benefits, supplies and equipment.
    b. Fiscal Agent: Aiken Technical College