

THOMAS R. (RANDY) DAVIS

DETAILED EXPERIENCE

Davis Consultants, Cross Hill, SC

Tritium Program (TP) Manager

March 2015-present

Responsible for providing program specific deliverables to assist the Tritium Programs Chief Engineer including development of guidelines and documents for Tritium Plant System Health Reports, development of Safety Analysis documents, and development of Project Specific documents for maintaining the Tritium Plant at SRS viable. Responsibilities are carried out under subcontract to SRNS (formerly Washington Savannah River Co and Westinghouse Savannah River Co), Savannah River Site, Tritium Facilities, Aiken, SC

Tritium Programs Project Manager

March 2012-March 2015

Responsible for developing near term and out-year plans to keep the Tritium Programs facilities current and operable within budget limitations using the latest technological advances, deploying these plans once approved through the development of modification documents, development of design input and functional requirements for all proposed modifications, integrations of technical and regulatory requirements into all proposed modifications, and development of decommissioning project plans.

ITER Program Consultant

January 2013-January 2015

Responsible for developing input for the Tritium Plant Safety Analysis Report for the ITER Tritium Plant at the ITER facility in Cadarache, France.

SRNS

Tritium Programs (TP) Project Design Authority Manager

January 2010-January 2012

Responsible for defining technical and safety requirements for all modifications for Tritium Programs at the Savannah River Site. Responsibilities include managing the efforts of System Engineering, Design Authority Engineering, and Lab (Savannah River National Lab) personnel to assure safe, technically robust, and economical designs compliant with Tritium Programs processing, regulatory, and confinement requirements.

ITER Tokamak Exhaust Processing (TEP) Cognizant System Engineering Manager

March 2009-March 2015

Responsible for defining technical and safety requirements for the TEP scope associated with the ITER International Fusion Energy Project being built in Cadarache France. Responsibilities include managing the efforts of System Engineering, Design Authority Engineering, and Lab (Savannah River National Lab and Los Alamos National Lab) personnel to assure a safe, technically robust, and economical design compliant with ITER processing, confinement, and regulatory requirements. Job scope requires liaison with multiple international customers through teleconferences, video conferences, email, and site visits.

Defense Programs (DP) Technical Advisor – WSRC

February 2002-January 2010

Responsible for providing technical expertise to the DP Chief Engineer in the areas of project management, startup, regulatory compliance, troubleshooting, and problem resolution. Responsible for developing safety and authorization basis strategies, performing safety and accident analysis, selecting safety related equipment necessary to assure safe facility operation, identifying performance requirements for safety related equipment, and providing technical input to design and project personnel for Tritium Projects. Advise engineering, project, and facility management on emerging technical, programmatic and regulatory compliance issues. Act as liaison to the DNFSB for DP.

Engineering Consultant

November 1995-December 2001

Responsible for developing safety and authorization basis strategies, performing safety and accident analysis, selecting safety related equipment necessary to assure safe facility operation, identifying performance requirements for safety related equipment, and providing technical input to design and project personnel for the Tritium Consolidation Project and Tritium Extraction Project. These projects have a combined Total Project Cost (TPC) of over \$500 million.

North Atlantic Energy Services Company Consultant – Seabrook Station, Seabrook NH

March-May 2001

Performed an independent assessment review and root-cause analysis of a low-level tritium leak discovered at the Seabrook Station Nuclear Plant. Recommendations from this review identified programs and procedures that will minimize the spread of tritium into the surrounding groundwater and will save NAESC over \$ 1-million in unnecessary plant modifications and many man-rem exposure.

Lockwood Greene Consultant, Aiken, South Carolina

November 1995-February 1996

Provided engineering and design input for development of the Conceptual Design Package for the Tritium Facility Consolidation Project at the Savannah River Site in Aiken, South Carolina.

Design Supervisor

October 1995-October 1997

Responsible for developing product and tooling designs for a \$15 million/year diamond plated tool company. Ernst Winter & Son, Travelers Rest, SC

WSRCProcess Engineering Manager

January 1993-July 1995, WSRC

Responsible for plant technical and engineering resources of a \$100 million/year Department of Energy (DOE) tritium processing facility. Responsibilities included: developing and maintaining authorization basis documents to assure safe facility operations; designing minor modifications to existing nuclear and chemical process systems; developing specifications and budget estimates for new major projects; acting as design liaison for major plant modifications; evaluation of vendor bids and proposals; providing technical

resolution of maintenance and production problems; developing technical responses to issues raised during reviews by regulatory agencies (DOE, DNFSB, FEB, etc.); and developing staffing and budget plans.

Work Control and Outage Manager

July 1991-January 1993

Responsible for coordinating and implementing field construction and maintenance activities associated with the startup of a \$400 million Replacement Tritium Facility (RTF). Responsibilities included: developing and implementing integrated schedules; coordinating, controlling, and prioritizing design, procurement, construction, testing, and maintenance activities during the facility start-up; coordinating facility, system, and component outages; tracking the daily status of all construction and maintenance work activities within the facility; and developing and implementing a maintenance program for the facility.

Start-up Test Coordinator

April 1989-July 1991

Responsible for developing and implementing the start-up testing program for systems in the RTF. Responsibilities included: developing test procedures based on applicable requirements; performing the test; coordinating resolution of any deficiencies found during testing; development of operating procedures; development of maintenance requirements and procedures; and turnover of tested equipment. Included were PLCs, HVAC systems, process cooling systems, nitrogen systems, instrument and control systems, gloveboxes, and process piping and vessels.

NASA, Johnson Space Center (JSC), Quality Assurance and Engineering Division, Houston, TX. JSC

Pressure System Engineer

December 1985-April 1989

Responsible for implementing a program to certify the quality, structural integrity, and safety of all facility, laboratory, and ground support pressure vessels and pressurized systems in accordance with ASME, ANSI, NBBPVI, and JSC requirements. Responsibilities included: specifying initial and periodic vessel and piping system inspection requirements; performing vessel and piping system inspections; performing vessel and system design calculations; and recommending improvements and upgrades to improve product quality and increase safety.

Quality Engineer

January 1985-December 1985

Developed and implemented quality inspection plans and procedures for space flight and support hardware.

EDUCATION

University of Houston, University Park

Bachelor of Science in Mechanical Engineering, 12/1984

CERTIFICATIONS

NASA Secret and DOE Q clearances held