The **Avionics Radiation Hardness Assurance Engineer** will support the **JETS II** contract in **Houston.**

**RESPONSIBILITIES:**

* Be familiar with systems engineering and integration (S&EI) and/or specialty engineering for NASA spaceflight (or similar complexity).
* Support new projects and sustaining efforts throughout product life cycle, including standards adjudications, system requirements reviews, preliminary design reviews, critical design reviews, manufacturing readiness reviews, flight readiness reviews, and failure investigations, as well as testing, analysis, inspection, sustaining support efforts.
* Drive critical decision-making processes for performing radiation testing, deriving part performance classification and taxonomy, and improving vehicle and subsystem level radiation reliability and survivability.
* Tailor Radiation Hardness Assurance (RHA) requirements based upon mission, environment, application, and lifetime (MEAL) factors as well as program/project risk posture.
* Bound stochastic and deterministic electronics failure modes induced by natural space radiation environment.
* Write verification test plans, test procedures, and test reports against product requirement.
* Ability to read and understand schematics for circuit and system diagrams to evaluate upstream and downstream impacts for transient analysis.
* Collaborate with design engineers, project personnel, and other stakeholders to evaluate performance of electronic hardware and assess need to address impacts to functional, performance, reliability, and availability metrics.
* Support program activities on behalf of subject matter experts (SMEs) by assessing relevance information with technical discussions to determine need to request SME consideration, and then accurately conveying SME assessments back to program and project stakeholders.
* Make recommendations for design, process improvements, and data collection.
* Perform root-cause analysis of test failures and communicate recommended actions.
* Present test results and data analyses to team members, project engineers, program managers, systems engineers, formal boards/panels, and more.
* Ability to adapt in the face technical hurdles and overcome challenges associated with increasing use of industrial-grade and automotive-grade components in space applications.
* Familiarity with Poisson, Markov, and/or Gaussian statistical analysis.
* Willingness to work in a technically challenging field.
* Comply with all radiation regulatory requirements for radiation safety.
* Test Engineer / Lab Scientist with at least 1 year experience.
* Other duties as assigned.

**REQUIRED:**

**This position has been posted at multiple levels (must meet minimum level indicated). Depending on the candidate's experience, requirements, and business needs, we reserve the right to consider candidates at any level for which this position has been advertised.**

* This position requires US Citizenship or Permanent Resident status due to the sensitivity of customer related information.
* Requires **bachelor’s degree** in electrical engineering, materials engineering, aerospace engineering, nuclear engineering, or physics in related radiation area.
* Must have **1+ years** of recent and related work experience.
* Be familiar with the subject matter expertise (SME) and/or specialty engineering field in radiation effects in microelectronics for NASA spaceflight (or similar complexity).
* Work directly with technicians, engineers, managers, and other stakeholders on a wide variety of projects.
* Possess technical knowledge of radiation effects in microelectronics and avionics systems, may include basic mechanisms for single-event effects and total dose, test strategies, mitigation techniques, and analysis of circuits, systems, and data links.
* Be familiar with the suite of activities known as Radiation Hardness Assurance (RHA) for avionics (analog, digital, power, etc.): determining Mission, Environment, Application, and Lifetime (MEAL) factors, developing and interpreting requirements, bill-of-materials requirement gap analysis, radiation testing, environment definition, radiation transport, shielding analysis, dose-depth curves, Single-Event Effects Criticality Analysis (SEECA), derating, Safe Operating Area (SOA), Radiation Design Margin (RDM), etc.
* Assess EEEE parts, circuits, functions, components, subsystems, and systems to evaluate risks, effectiveness of mitigation strategies, and the ability to meet functional, performance, and reliability requirements during and after exposure to the mission ionizing radiation environment.
* Lead or support screening and characterization test efforts for heavy ion, proton, and pulsed-laser Single-Event Effects (SEE), Total Ionizing Dose (TID), Enhanced Low-Dose Rate Sensitivity (ELDRS), Total Non-Ionizing Dose (TNID), Displacement Damage Dose (DDD), etc.
* Create detailed radiation assessments, presentations, test plans, analyses, and reports.
* Design, troubleshoot, and repair new and existing radiation test setups, may include cables, laboratory test equipment, printed circuit boards, software, firmware, hardware description languages, etc.

**DESIRED:**

* Experience with test hardware such as oscilloscopes, multi-meters, logic analyzers, function generators, electronic load banks, power supplies, power analyzers.
* Familiar with systems engineering and integration (S&EI) and/or specialty engineering for NASA spaceflight (or similar complexity) with systems engineering and integration (S&EI) and/or specialty engineering for NASA spaceflight (or similar complexity).
* Experience with test hardware such as oscilloscopes, multi-meters, logic analyzers, function generators, electronic load banks, power supplies, power analyzers.
* Prior experience in design and test of analog instrumentation systems.
* Project based experience designing, building, testing, and troubleshooting power distribution electronics, battery systems, and other electrical hardware (requirements definition; system modeling and simulation; circuit analysis; PCB design, fabrication; requirements verification).
* Excellent fabrication, and assembly; harness fabrication; requirements verification).
* Excellent communication skills and the ability to work in a multi-disciplinary team of mechanical, electrical, and software engineers designing and building world-class, NASA spaceflight hardware.
* Prior experience in design and test of power supply and conditioning systems.

**WORK LOCATION:**

* This position is located onsite.
* This position offers a 9/80 schedule, every other Friday off.
* This position may require some travel.

**BACKGROUND INVESTIGATIONS REQUIRED:**

All Bastion employees must be able to pass a national agency check, some positions require a clearance and will require an extensive background verification/check process.

**DRUG AND ALCOHOL SCREENING REQUIRED:**

All Bastion employees must be able to pass pre-employment drug screen; some contracts require participation in periodic random drug and alcohol screening programs.

**STANDARD BASTION REQUIREMENTS:**

* Must have experience with Microsoft Office Suite.
* All of Bastion’s employees must be team players.
* Able to communicate effectively, verbally and in written form, with internal and external customers.
* Able to follow company programs, processes, procedures, practices, requirements, goals, and objectives.
* Must have a strong work ethic and must be safety culture oriented.
* Must be organized with good time management skills.
* Generally, an office environment, but can involve inside or outside work depending on the task.
* Work may involve sitting or standing for extended periods (90% of time).
* May require lifting and carrying up to 25 lbs. (5% of time).
* Regular attendance in accordance with an established work schedule is critical.
* Ability to work outside normal schedule and adjust schedule to meet peak periods and surge requirements.

**BASTION BENEFITS:**

Bastion offers a wide range of benefits for their full-time employees; medical, prescription, dental, vision, AD&D, disability benefits, life insurance, retirement 401k, vacation, sick pay, holidays, and flexible work schedules (when available). We also support career advancement through professional training and development.

**ABOUT BASTION:**

Bastion offers career opportunities with competitive benefits, exciting possibilities for advancement, and an exceptional work environment; the well-being of our employees is a priority, and our flexibility allows our employees a great work life balance. Our culture is based on strong business ethics, integrity, and professionalism. Our team members are known for their initiative and high-quality work. When it comes to our employees, we value, respect, and help them grow in their careers.

**INCLUSION AND DIVERSITY:**

At Bastion, we are passionate about our people and our safety culture. We are committed to a journey toward being a more inclusive and diverse company, that philosophy fosters an environment of collaboration across cultures. Individual thoughts, opinions, and perspectives bring value and help us develop solutions for challenging problems, they make us more inventive, and more resilient.

All qualified applicants will receive consideration for employment without regard to race, color, sex, sexual orientation, gender identity, religion, national origin, disability, veteran status, or other legally protected status.

Bastion participates in e-Verify.

#EntryLevel

#LI-Onsit

**BT-25009**

[x]  Exempt [ ]  Non-Exempt [ ]  Full-Time [ ]  Part-Time [ ]  Intern Other\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Manager Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Manager Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Employee Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Employee Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Comments:

HR Manager Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_