

# ■ Product Realization and Engineering Assessment

SAND2014-0826P



*Supporting Sandia's engineering community to improve product, process, and performance quality in sustaining its national security mission.*

## Our Commitment

Sandia's primary mission is ensuring the U.S. nuclear arsenal is safe, secure, and reliable, and can fully support our nation's deterrence policy. Sandia is the engineering arm of the U.S. nuclear weapons enterprise. We are responsible for nuclear weapon systems and components over their entire lifecycle, from original design through final dismantlement and disposal. The nation's nuclear weapons must meet the highest reliability requirements to always work when needed and authorized, and meet equally stringent safety and security requirements so that they never work when not authorized.

Sandia's Product Realization and Engineering Assessment (PREA) team conducts independent performance-based assessments and activities associated with Sandia product realization and

engineering to enhance the surety of the nation's nuclear weapons. The team works to deliver relevant assessments that provide accurate and concise results. Our commitment to meeting stringent quality requirements while continuously improving performance supports Sandia's mission to provide exceptional service in the national interest.

## Supporting Sandia's Engineering Communities

PREA is dedicated to the highest standards of service, conduct, and continuous improvement of our operations so we can inspire Sandia engineers to excel in product realization and engineering. We work together with subject matter experts to review the safety, security, reliability, and quality of weapon systems. Through assessments, evaluations and other special projects, we support Sandia's weapon engineering communities by identifying and documenting gaps and roadblocks that result in process and product issues, mitigating unnecessary costs.

### Assessments

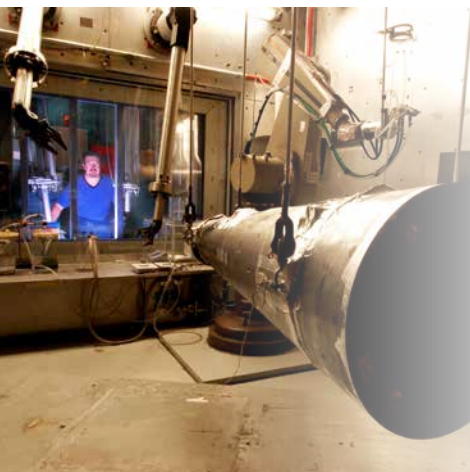
Independent Assessments are the standard tool the PREA team uses. These focus on:

- Product acceptance testers across multiple organizations
- Component qualification, requirements flow down or processes
- Design reviews and engineering authorizations
- Software quality assurance
- Department or center procedures and work instructions

Independent Assessments may also validate previous internal or external assessment results.

### Evaluations

Customer Requested Evaluations are performed at the request of Sandia management and focus on:



*Exceptional service in the national interest*

- Providing information to facilitate a solution to a known or suspected problem.
- Evaluating a product or process to identify areas for improvement.

### Special Projects

Special Projects are also performed at the request of management. These are not formal assessments; however, they involve collecting and analyzing information for specific topic areas such as:

- Supporting and updating procedures
- Project support for self-assessments
- Department process and operation improvements

Dedicated members of the PREA team are vital to supporting Sandia's mission and have the opportunity to:

- Develop an in-depth knowledge of the design engineering and manufacturing of nuclear weapons
- Evaluate the suitability of the procedures or rules for achieving Sandia's product realization goals
- Assess patterns and trends within the product or process data

### Key skills needed for Product Realization and Engineering Assessments at Sandia

Sandia is rich in opportunities for professional assessors to use their education and experience to find roadblocks impeding the engineering and manufacturing of critical weapon systems in a fast-paced product development and production environment. If you are a professional with the following key skills, consider joining Sandia's Product Realization and Engineering Assessment team:

- Demonstrated knowledge of multiple facets of electrical, mechanical, or nuclear engineering
- Efficient at gathering data and information, analyzing it against requirements, and documenting the results in a clear and actionable format
- Strong analytical and negotiation skills
- Outstanding oral and written communication skills
- Excellent presentation, teambuilding, and leadership skills
- Ability and willingness to lean into adversity and solve problems
- Ability to use independent judgment to clearly document complex product realization issues
- Ability to organize, prioritize, and follow-through to completion on multiple tasks
- Ability to successfully manage and complete multiple competing programs and projects
- Ability to guide multidisciplinary teams
- Understanding of electrical or mechanical design principles, practices, and processes
- Understanding of manufacturing policies, practices, and processes
- Familiarity with modern quality engineering principles, practices and standards

For more information contact:

Staffing Hotline:

505-844-3197

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## HOW TO APPLY

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or "Engineering Assessments"

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