

Improving Nuclear Fuel Reliability NAC International Training Series Module

Nuclear Fuel Manufacturing Oversight

2021 is here...

The elimination of manufacturing related defects still remains on the list of challenges. We dedicate oversight resources to watch the supplier in the hope of improving supplier performance and product quality, but...

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Does your oversight have the right focus ?

Maybe not. With NAC's training in performance-based oversight of nuclear fuel manufacturing you will understand the factors that directly affect fuel performance. You will be better positioned to focus your resources in the right areas and on the right things. This is essential for achieving effective oversight and meeting zero-defect goals.

How effective is the manufacturer?

Some manufacturers claim to have Six Sigma programs. Most claim to have the best processes and practices. When it comes to critical fuel reliability attributes, you need to know if the supplier lives up to its claims. With NAC's training, you will become more effective in identifying the strengths and weaknesses in your manufacturer's shop using engineering, quality, and Six Sigma statistical tools and techniques.

What does the training cover?

Nuclear fuel is complex and the relationships between design, manufacturing, and performance can be complicated. To address this, the 3 day training begins by reviewing basic fuel mechanical design, materials, and performance considerations. It uses this foundation and draws on proven methods to define the elements and approach for building a performance-based oversight program. Manufacturing processes are reviewed in detail using flow diagrams, and performance-based attributes are identified and ranked. Six Sigma tools and other statistical techniques used to evaluate equipment capability and inspector/ inspection effectiveness are discussed. Methods for handling and trending nonconformances are reviewed. The roles of Engineering and QA oversight staff and implementation methods for achieving effective oversight are discussed.

Concepts and tools learned in the class are reinforced through group breakout sessions that simulate the manufacturing environment and demonstrate some of the challenges in the manufacture and oversight of safety-related products.

Who can benefit from the training?

Engineers, technical personnel, and Quality Assurance (QA) oversight staff at the manager or individual contributor level that are involved with nuclear fuel design, manufacturing, receivinginspection, handling, performance and reliability will benefit from this training. The training is applicable to individuals at all levels of experience, from new hires to your most seasoned nuclear fuel staff.