

CAUSE ANALYSIS FOR MUNITIONS RESPONSE WORKSHOP

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Cause analysis, commonly referred to as Root Cause Analysis (RCA), is a critical component of a quality system and is required processes under DoD Advanced Geophysical Classification Accreditation Program (DAGCAP), which implements *ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories* (ISO 17025) through the *Department of Defense Quality Systems Requirements for Advanced Geophysical Classification* (DoD QSR). As stated in the ISO standard, “Cause analysis is the key and sometimes the most difficult part in the corrective action procedure. Often the root cause is not obvious and thus a careful analysis of all potential causes of the problem is required.” An effective RCA process will identify and bound which data have been impacted by a non-conformance and will help the project team determine what corrective actions (CA) are necessary to prevent reoccurrence and ensure the data quality supports its usability towards achieving the project objectives. There are several methods that can be used to guide the RCA process, including the “5 Whys” method and the Ishikawa Diagram, or “Fishbone” diagram, method. Regardless of the method used, the RCA must arrive at the root cause of the non-conformance and the proposed corrective action(s) must address both the technical resolution of the non-conformance and that root cause.

A recent review of multiple RCAs written for geophysical non-conformances on Munitions Response (MR) projects revealed issues with getting to the root cause of the non-conformances. As a result, proposed corrective actions did not address the right issues, and often did not adequately address data usability or prevent recurrence of the problem. This observation has led us to understand that additional training/guidance is needed for both contractors and government representatives.

The objective of this workshop is to provide a panel composed of technical and quality subject matter experts (SME) including Chris Gunning (A2LA), Chris Fox-Strauss (ANAB), Elise Goggin (EMCX), Steve Stacy (EMCX), John Jackson (EMCX), and Jordan Adelson (EDQW), to present and discuss the following:

- ISO/IEC 17025 and DoD QSR requirements related to RCA/CA
- Common methods for conducting RCA
- Real-world case studies (Breakout sessions)
- Open Discussion and Panel

Participants will be encouraged to contribute to discussions and will be asked to help identify the root cause for example cases and then develop potential corrective actions to address those causes. By including perspectives from multiple SMEs and encouraging participation from attendees, we hope the audience will gain a better understanding of the process that they can implement on their MR projects.