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ACTIVITIES (D5)

Risk Management for Safety and Quality in Space Programs (1)

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INNOVATION AND PRACTICE OF CLOSED LOOP PROBLEM SOLVING MANAGEMENT

Abstract

Quality Problem Closed Loop Solving Management (QPCLSM) refers to a series of activities including adopting appropriate technical and management approaches to analyze causes and mechanism for the quality problem identified in the process of product design, production, test and service, take corrective and preventive actions and prevent them recurrence through lessons learned. The scheme provides a systematic procedure to mitigate potential quality risks, solve quality problems and avoid their recurrence. As a mandated quality assurance method, QPCLSM is widely used in the development process of aerospace product to ensure mission success. However, some issues, such as inaccurate problem identification, inadequate cause analysis, impracticable corrective actions, undefined scope of application of lessons learned and nonstandard knowledge capture etc. are encountered in the application of this method, which limit its effectiveness. To resolve these issues above, China Academy of Launch Vehicle Technology (CALT) improved the process of QPCLSM and introduced quality problem clues table and quality problem baseline. Historical quality problem closed loop solving information is extracted as one word into quality problem clues table to support quick identification of quality problems. Quality problem baseline integrating quality problem knowledge management and FRACAS is proposed to improve the effectiveness of QPCLSM.