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them!

### Our Mission

CDS AQS provides a total business management solution for small to mid-sized companies by establishing quality and business management systems, providing employee training and development and optimizing company processes and systems to increase profitability and efficiency.

### Our Motto

Partnering with small to mid-sized companies to reduce customer risk and increase profitability by optimizing internal processes via risk identification, variation management and human capital investment.

### Our Goal

Our goal is to take your company data and turn it into action via system solutions tailored specifically to your company's needs. These system solutions will then allow you to better utilize both human and equipment resources.

# Monthly Newsletter:

APR 2025



## Introduction to 32 CFR 170 & 48 CFR 240



The aerospace industry is facing significant regulatory shifts with the introduction of **32 CFR 170 (Final Ruling)** and **48 CFR 240**. These regulations redefine compliance expectations, particularly in security clearance procedures, supply chain risk management, and cybersecurity requirements.

### Key Takeaways:

**32 CFR 170:** This regulation is particularly significant for aerospace companies that work with the federal government, as it requires them to enhance security policies, implement monitoring programs, and ensure compliance with stricter personnel vetting procedures. This regulation focuses on three major areas:

Security Clearance Reforms – Updates to how personnel security clearances are granted, maintained, and revoked to enhance national security.

Insider Threat Mitigation – Strengthening programs to detect and prevent insider threats, ensuring personnel with access to classified information do not pose security risks.

Risk Assessments for Personnel – Implementing continuous evaluation processes, including financial, social, and psychological assessments, to identify potential security concerns.



**48 CFR 240:** A regulation that strengthens cybersecurity and procurement rules for aerospace firms that contract with the U.S. government. The goal is to enhance data security, supply chain integrity, and compliance with federal cybersecurity standards. The key aspects to this regulation are as follows:

Cybersecurity Requirements: Aerospace contractors must comply with stricter cybersecurity measures, including encryption, controlled access to sensitive data, and incident reporting.

Procurement Rules: Federal contracts now include enhanced vendor scrutiny, requiring companies to prove that their supply chains meet security and compliance standards.

Impact on Aerospace Firms: Companies must update their security protocols, vet their subcontractors, and align with frameworks like the Cybersecurity Maturity Model Certification (CMMC) to remain eligible for government contracts



**Impact:** Aerospace firms working with the Department of Defense (DoD) or other federal agencies must reassess their compliance frameworks to avoid serious consequences, such as financial penalties, contract cancellations, or even disqualification from bidding on future federal contracts.

Having issues with CFRs?  
Let CDS Advanced Quality Solutions help!





## FAIRs AS9102

First Article Inspection (FAI) is a standard in the aviation and aerospace industry.

When a company is commissioned to make a part or product for a customer, they are required to submit paperwork detailing the specifications of the piece.

The purpose of the First Article Inspection is to provide objective evidence that all engineering design and specification requirements are properly understood, accounted for, verified, and documented.

A First Article Inspection Report (FAIR) is the document that certifies that each sample was produced and inspected according to the customer's specifications.

CDS has the capability to complete FAIRs if you need the additional help!

**Having issues with FAIRs?**  
**Let CDS Advanced Quality Solutions Help!**



## APQP (Part 2)



**Phase 1 – Planning** - capture customer inputs, benchmark data, lessons learned, regulatory requirements, technical specifications, company know-how, and strategy into a product concept and a realization plan. This includes identification of the high-level technical, quality, and cost targets. The multidisciplinary team plans the activities of the first phase of APQP with the customer in mind. The experience and knowledge of the team helps minimize errors and ensures that even minute details are not missed.

Activities	Deliverables	Outputs
<ul style="list-style-type: none"> <li>Collect the technical and non-technical requirements applicable to the product and associated project</li> <li>Develop a Statement of Work (SOW) for the project</li> <li>Define the product and associated project targets</li> <li>Develop the product breakdown structure [i.e., high-level Bill of Material (BOM)] to support source selection</li> <li>Coordinate and communicate timing with all applicable stakeholders</li> <li>Schedule all key dates and deliverables in the project plan</li> </ul>	<ul style="list-style-type: none"> <li>Product design requirements</li> <li><b>Project targets –safety, quality/manufacturability, service life, reliability, durability, maintainability, schedule, and cost</b></li> <li>Preliminary <u>listing</u> of Critical Items (CIs) and Key Characteristics (KCs)</li> <li><b>Preliminary BOM</b></li> <li>Preliminary process flow diagram</li> <li>SOW review</li> <li><b>Preliminary sourcing plan</b></li> <li><b>Project plan</b></li> </ul>	<ul style="list-style-type: none"> <li>Finalization Product Concept</li> <li>Availability of Preliminary Bill of Material (BOM)</li> </ul>



**"Bold "text indicates requirements defined in this standard.**

**Need help or training with APQP?**  
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## PPAP's (Part 2)



PPAP Requirements through IAQG for Aerospace. PPAP Elements:

- Design Records:** copy of drawings where each feature and notes are ballooned and technical specifications/standards.
- Design Risk Analysis:** an analytical technique used to identify potential failure modes related to product performance (i.e. fit, form, function).
- Process Flow Diagram:** graphical outline of all steps and sequences of the manufacturing process for a part from start to finish.
- PFMEA:** is a disciplined review and analysis of a new or revised process and is concluded to anticipate, resolve, or monitor potential process problems for a new or revised product program.
- Control Plan:** written description of the systems for controlling production parts and processes. It is a living document and should be updated to reflect changes.
- MSA:** Statistical method used to show the variation in the measurement system, which includes Gauge R&R, stability, etc.
- Initial Process Capability Studies:** includes all the SPC charts to prove producing critical/significant characteristics have stable variability.
- Packaging, Preservation, and Labeling Approvals:** ensure that products are adequately protected from damage, confirm that labeling and part marking requirements.
- FAIR:** a complete, independent, and documented physical and functional inspection process to verify that prescribed production processes have produced an acceptable item as specified.
- Customer PPAP Requirements:** may specify additional requirements or provide clarification of requirements, deliverables, and/or data submittals.
- PPAP Approval Form:** a form submitted to the customer to approve.



**Need help or training with PPAPs?**  
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Do you have topics you would like to see?

Do you have the need for trainings?

**CDS AQS** is here to help you!

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