**Headquarters
Department of the Army
Washington, DC
12 December 2023**

*Army Regulation 702–11

Effective 12 January 2024

Product Assurance

Army Quality Program

By Order of the Secretary of the Army:

RANDY A. GEORGE
*General, United States Army
Chief of Staff*

Official:

MARK F. AVERILL
*Administrative Assistant to the
Secretary of the Army*

History. This regulation is an expedited revision.

Authorities. The authority for this regulation is DoDI 5000.88.

Applicability. This regulation applies to the Regular Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve, unless otherwise stated.

Proponent and exception authority. The proponent of this regulation is the Assistant Secretary of the Army (Acquisition, Logistics and Technology). The proponent has the authority to approve exceptions or waivers to this regulation that are consistent with controlling law and regulations. The proponent may delegate this approval authority, in writing, to a division chief within the proponent agency or its direct reporting unit or field operating agency, in the grade of colonel or the civilian equivalent. Activities may request a waiver to this regulation by providing justification that includes a full analysis of the expected benefits and must include formal review by the activity's senior legal officer. All waiver requests will be endorsed by the commander or senior leader of the requesting activity and forwarded through their higher headquarters to the policy proponent. Refer to AR 25–30 for specific requirements.

Army internal control process. This regulation contains internal control provisions in accordance with AR 11–2 and identifies key internal controls that must be evaluated (see appendix B).

Suggested improvements. Users are invited to send comments and suggested improvements to this regulation on DA Form 2028 (Recommended Changes to Publications and Blank Forms) via email usarmy.pentagon.hqda-asa-alt.mbx.asa-alt-publication-updates@army.mil.

Distribution. This regulation is available in electronic media only and is intended for the Regular Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve.

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*This regulation supersedes AR 702–11, dated 7 November 2018.

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UNCLASSIFIED

SUMMARY of CHANGE

AR 702–11
Army Quality Program

This expedited revision, dated 12 December 2023—

- Updates general policy to add digital engineering (para 2–2).

- Updates relevant policies (para 2–2*a*).

- Updates the significance of quality planning (para 2–2*b*).

- Updates quality management policy (para 2–3).

- Updates quality integration discipline policies (para 2–3*b*).

- Adds risk identification and mitigation (para 2–3*f*).

- Adds quality management functions (para 2–3*h*).

- Adds verification and validation (para 2–4).

- Adds interface requirement with systems engineering process (para 2–5*d*).

- Updates training requirements (para 2–9*a*).

- Adds Digital Engineering term (glossary).

Contents (Listed by chapter and page number)

Summary of Change

Glossary of Terms

Chapter 1
Introduction

Section I

General

1–1. Purpose
This regulation prescribes policy and responsibilities for development, implementation, and sustainment of the Army Quality Program as an integral component of acquisition, logistics, and technology business areas.

1–2. References, forms, and explanation of abbreviations
See appendix A. The abbreviations, brevity codes, and acronyms (ABCAs) used in this electronic publication are defined when you hover over them. All ABCAs are listed in the ABCA directory located at https://armypubs.army.mil.

1–3. Associated publications
This section contains no entries.

1–4. Responsibilities
See section II of this chapter.

1–5. Records management (recordkeeping) requirements
The records management requirement for all record numbers, associated forms, and reports required by this publication are addressed in the Records Retention Schedule–Army (RRS–A). Detailed information for all related record numbers, forms, and reports are located in the Army Records Information Management System (ARIMS)/RRS–A at https://www.arims.army.mil. If any record numbers, forms, and reports are not current, addressed, and/or published correctly in ARIMS/RRS–A, see DA Pam 25–403 for guidance.

Section II

Responsibilities

1–6. Assistant Secretary of the Army (Acquisition, Logistics and Technology)
The ASA (ALT) will—
   a. Establish policy and goals for the Army Quality Program.
   b. Establish Quality Program performance measures consistent with Army strategic objectives with the assistance of the Commanding General (CG), U.S. Army Materiel Command (AMC) and other stakeholders.
   c. Foster quality partnerships with other military Services, Federal agencies, industry, and academia.
   d. Facilitate identification of resources for Service-wide execution of Army Quality Programs.

1–7. Commanding General, U.S. Army Materiel Command
The CG, AMC will manage the Army Quality Program and will—
   a. Serve as the Army's primary point of contact for quality matters.
   b. Identify a management representative with responsibility, authority, and resources to execute the Army Quality Program.
   c. Develop procedures and guidance for effective implementation of the Army Quality Program.
   d. Establish reporting methods and frequency of performance reviews of Army Quality Programs. Assist ASA (ALT) in the development of Quality Program performance measures.
   e. Require quality performance objectives for responsible officials that develop, implement, and provide oversight of quality activities.
   f. Assess compliance with this regulation using objective performance measures.
   g. Conduct performance reviews of Army Quality Programs.

h. Provide guidance for annual quality management system self-assessments, and as necessary, validate self-assessments through means such as site visits, inspections, or audits.

i. Find and participate in Government and industry quality forums of value to the Army.

j. Facilitate development of skills and competencies for all Army quality professionals that are representative of current Government and industry quality trends.

k. Facilitate the Army's Quality Community of Practice.

l. Ensure standardized quality practices are employed throughout the Army.

m. Maintain the Army quality portal.

n. Provide technical assistance to commands, activities, installations, and other applicable organizations. This assistance includes, but is not limited to, development of corrective action plans.

o. Continuously improve all Quality Program areas, performance, and processes.

1–8. All Army heads of staff elements and commanders of Army commands, Army service component commands, and direct reporting units

All heads of Army staff elements and Commanders of ACOMs, ASCCs, and DRUs responsible for procuring products and services in support of Army missions will—

a. Implement procedures and policy to institutionalize the requirements of this regulation.

b. Identify heads of organizations and points of contact responsible for development and management of Quality Programs and ensure effective implementation and control.

c. Identify an individual's primary responsibility for executing a Quality Program and management system that includes—

(1) Objectives, standard operating procedures, implementation strategies, and measures of program performance.

(2) Resources and documented processes needed to deliver quality products and services.

(3) Communication procedures and control of the Quality Program throughout the organization.

d. Ensure subordinate leaders promote information exchange and standardization across the Army and participate in Army Quality Communities of Practice.

e. Conduct annual assessments to ensure effective implementation of Quality Programs.

f. Require quality performance objectives for responsible officials that develop, implement, and provide oversight of quality activities.

Chapter 2
Quality Program Policy and Requirements

Quality Programs will satisfy the requirements as stated in this chapter.

Section I

Quality Program

2–1. The Army Quality Program

The leaders of Army Quality Programs will enable—

a. Maximum operational readiness, mission effectiveness and efficiency, and customer satisfaction with Army products, services, and systems.

b. Products and services to conform to performance and technical requirements and satisfy the customer's life cycle needs.

c. Quality planning, organization, direction, control, and support in achieving Army objectives.

d. Effective implementation of technical specifications and performance expectations, including but not limited to those pertaining to design, analysis, development, acquisition, production, storage, distribution, operations, sustainment, maintenance, and disposal of, by, or for the Army consistent with customer(s) needs.

e. Continued review, evaluation, and improvement of Army quality practices.

2–2. General policy

All leaders of Army activities that acquire, provide, and produce products and services in support of acquisition, logistics, and technology missions will have Quality Programs consistent with this regulation, comprised of repeatable and reproducible processes. The U.S. Army will maintain a competitive edge,

maintain a superiority over our enemies, and defeat rapidly changing and emerging threats through modernization efforts and will implement early, sustained, and robust quality and Quality Programs accordingly to ensure success. Digital Engineering is an integrated approach that uses authoritative sources of systems' data and models as a continuum across disciplines to support lifecycle activities from concept through disposal. The goal of Digital Engineering is to institutionalize and integrate modern engineering processes through data management and exploitation. To the greatest extent practicable, Digital Engineering, which fully integrates quality and Quality Program functions, will be planned and leveraged into quality management and processes over the entire lifecycle in system requirements, design, development, production, verification, validation, operations, sustainment, and disposal phases to increase product performance while reducing the time and cost to deliver transformational products and critical capabilities to the Warfighter. Quality Program managers should build leadership advocacy for Digital Engineering initiatives, set organizational goals, establish quality expectations for the workforce, and quantitatively assess the digital engineering value being realized (see https://www.cto.mil).

a. Quality Program managers will incorporate Government or commercial standards and best practices (for example, ISO 9001:2015, AS9100D, IATF 16949:2016; and so forth) into Quality Programs. Heads of organizations should find out more information about these commercial standardization groups from their websites.

b. Quality planning is the process of making all the decisions necessary to ensure the quality of your product or service when it reaches your customers. Quality planning is essential to the successful delivery of products and services to the Soldier. Effective quality planning carries efforts through the start and finish of each program.

c. Each leader of a Quality Program will integrate the following guiding principles:

(1) Mitigation of customer risk through assessment of processes, products, and services against defined performance requirements.

(2) Commitment to excellence, customer satisfaction, and continuous improvement.

(3) Adoption of proactive, concurrent, and confirmatory quality measures to assess performance.

(4) Communication of quality requirements to all stakeholders.

(5) Authority to positively affect product and service quality.

(6) Oversight for planning, organizing, and directing quality resources for program success.

(7) Development and training of competent quality professionals.

(8) Partnering with Government and industry in addressing quality issues.

(9) Application of ISO quality standards, Baldrige criteria, Shingo Prize evaluation criteria, and the Capability Maturity Model Integration.

(10) Management of quality standards at all levels of the organization and supply chain.

(11) Assessment through quality audits.

(12) Identify, investigate, track, and correct non-conformances, and comply with AR 702–7–1, when applicable.

(13) Collaborative development of local policy and guidance with the quality community of practice to optimize efforts.

2–3. Quality management
All quality requirements must be necessary, practical, measurable, verifiable, traceable, and enforceable. Each requiring activity will assign responsibilities, define requirement, establish performance metrics, and assessment processes for quality management. Heads of requiring activities will—

a. Measure and verify conformity to requirements.

b. Integrate quality disciplines early within all acquisition engineering processes including test activities.

c. Support fact-based decision-making.

d. Reduce variation.

e. Use performance information to foster continuous improvement.

f. Identify and mitigate effective cost, programmatic, or technical performance risk.

g. Perform effective root-cause analysis and take corrective action.

h. Ensure performance of quality management functions by persons who—

(1) Have sufficient responsibility, authority, expertise, and organizational freedom to identify and evaluate quality issues to initiate, recommend, or provide solutions.

(2) Ensure processes needed for a quality management system are established, implemented, and maintained.

(3) Possess and maintain the level of training required to perform such functions.

(4) Ensure and promote awareness of customer requirements throughout the organization.

(5) Ensure that cost or schedule objectives are met.

(6) Manage and track changes to processes, products, and services.

(7) Identify critical safety items, critical characteristics and other characteristics (for example, major, minor, key, significant, and so forth) in design, processes, and products and identify appropriate quality controls and mitigations to prevent, detect, and control their nonconformity.

(8) Ensure disciplined design verification processes are incorporated (for example, design verification plan and report).

i. Perform annual review of program performance.

Section II

Quality Program Requirements

2–4. Life cycle support
Quality Program managers will identify and assess quality requirements early and continually throughout product or service life cycles giving due consideration to total life cycle costs and risks associated with design, development, production, verification, validation, deployment, sustainment, and disposal.

2–5. Interface with systems engineering processes
Quality Programs will—

a. Integrate quality disciplines within systems engineering processes.

b. Perform independent and objective assessments of products and services.

c. Ensure appropriate management and integration of quality competencies for the product or service life cycle.

d. Capture/identify potential engineering/manufacturing/quality risks.

2–6. Risk-based planning
Through design and implementation, Quality Program managers will manage risks associated with product or service nonconformity, giving consideration to the total life cycle costs of quality. Risk management will consider the likelihood and consequences of nonconformity, and influence of maturity, complexity, criticality, and value of work performed, as well as demonstrated past performance.

2–7. Voice of the customer
Quality Program managers will—

a. Identify, prioritize, document, and assess customer quality requirements to ensure consistent understanding and customer satisfaction.

b. Assess products and services to ensure conformance with customer defined quality requirements.

c. Develop, document, and measure relevant quality level requirements to ensure that the delivered products and/or services meet the customer's needs.

2–8. Preventive and corrective action
Utilizing process improvement tools and techniques, such as statistical process control, which focuses on inputs, and statistical quality control, which focuses on outputs, Quality Program managers will—

a. Institute preventive measures to reduce the probability of nonconformance.

b. Establish corrective protocols with specific schedules to mitigate risks and prevent recurrence of issues (through root-cause elimination) when nonconforming performance is identified.

c. Track corrective protocols to ensure completion.

2–9. Core competencies
Management of a comprehensive Quality Program requires subject matter experts.

a. The Defense Acquisition University offers courses and certifications in production, quality, and manufacturing. Persons with quality responsibilities should be encouraged to complete applicable engineering and technical management foundational and practitioner certifications.

b. Organization leads should consider coding positions that have acquisition quality responsibilities as acquisition production, quality, and manufacturing positions when writing position descriptions.

c. Quality Program managers will develop and utilize a skills development plan that defines and develops quality competencies to ensure appropriate internal quality expertise. Quality competencies are those inherent and fundamental disciplines that ensure customer requirements for products and services are satisfied. At a minimum, the following quality competencies will be considered:

(1) *Quality engineering.* The application of mathematical and scientific principles in the analysis of a product's design and manufacturing system to identify, reduce, or manage variation at all life cycle stages.

(2) *Product quality management.* The application of techniques, such as statistical process and product control, to ensure sustainment of acquisition quality provisions and product quality requirements throughout the life cycle of the product.

(3) *Service quality management.* The application of techniques to ensure sustainment of service quality provisions and requirements throughout the service relationship.

(4) *Product verification and validation.* The application of techniques to ensure product meets operational needs and product design and performance meets specified requirements.

(5) *Software quality.* The planned and systematic approach to evaluate effectiveness and conformity with software product requirements, processes, and procedures*.*

(6) *Quality systems management.* The management of a formalized system that controls the structure, responsibilities, and procedures, to achieve maximum customer(s) satisfaction at the lowest overall cost to the organization.

2–10. Quality Community of Practice
Heads of all Army activities that acquire, provide, and produce products and services in support of acquisition, logistics, and technology missions will exchange best quality practices and lessons learned by means of a community of practice. Member organizations to this forum will work in collaboration with CG, AMC to solve common challenges through joint process action teams, benchmarking, partnerships, and other vehicles that facilitate component-wide solutions. This Community of Practice will serve as subject matter experts on all quality matters impacting the Army.

2–11. Benchmarks and partnerships
Quality Program managers will utilize benchmarking against similar programs to reflect best practices. When appropriate, quality stakeholders should establish partnerships with other military services, Federal agencies, industries, suppliers, professional societies, regulatory bodies, academia, and so forth to foster an environment of information exchange and to promote collective improvement strategies.

2–12. Single-process initiatives
To the maximum extent possible, Quality Program managers should utilize standardized quality practices throughout the Army to reduce performance variation, increase customer(s) confidence, minimize associated costs, and reduce program risks.

2–13. Supplier quality management
Reliance upon the expertise and performance of suppliers is a paramount consideration during product and service acquisition. The selection, evaluation, and management of suppliers will consider past quality performance and risk criteria. When appropriate, acquisition documents will incorporate specific quality requirements. Quality Program managers will assess and manage all suppliers within the value chain by establishing and tracking supplier performance metrics and comparing the performance of supplier products and services against quality requirements.

2–14. Metrics
Quality Program managers will identify quality objectives and measures and establish metrics to evaluate the performance and value of Quality Programs to the Army. Such measures will be associated with readiness, customer satisfaction, cost of quality, and factors that can adversely affect component and organizational performance.

2–15. Continuous improvement

a. All activities will be subject to variation reduction and continuous process improvement through the use of metrics.

b. Quality Programs will focus on—

(1) Reducing complexity and non-value added activities.

(2) Increasing the quality of the product or service.

(3) Reducing associated operating costs.

(4) Reducing cycle times.

(5) Satisfying customer requirements.

c. Integrate products, processes, and performance is a key element of all Quality Programs.

Appendix A

References

Section I

Required Publications
Unless otherwise indicated, DoD publications are available on the Executive Services Directorate website at https://www.esd.whs.mil.

DoDI 5000.88
Engineering of Defense Systems (Cited in title page.)

Section II

Prescribed Forms
This section contains no entries.

Appendix B

Internal Control Evaluation

B–1. Function
The function covered by this evaluation is Army Quality Programs.

B–2. Purpose
To assist Army leaders, materiel developers, and supporting life cycle management commands in evaluating their key internal controls. It is not intended to cover all controls.

B–3. Instructions
Answers to the below evaluation must be based on the actual testing of controls such as document analysis, direct observation, interviewing, sampling, and simulation. Answers that indicate deficiencies must be explained and corrective action indicated in supporting documentation. These internal controls must be evaluated at least once every year. Certification that the evaluation has been conducted must be accomplished in accordance with AR 11–2 on DA Form 11–2 (Internal Control Evaluation Certification).

B–4. Test questions
   a. Has a Quality Program been implemented?
   b. Is the Army Quality Program used to reduce program costs and risks associated with design, development, production, deployment, sustainment, and disposal?
   c. Is quality continually assessed throughout the product or service life cycle?
   d. Are quality requirements necessary, practical, measurable, verifiable, and enforceable?
   e. Have metrics been identified to evaluate the performance and value of quality activities to the Army?
   f. Are trends for key quality metrics monitored?
   g. Have program risks been analyzed, mitigated, or accepted?
   h. Have quality performance objectives been established for those responsible officials with significant life cycle cost, schedule, and performance responsibilities?

B–5. Supersession
This evaluation replaces the evaluation for the execution of the Army Quality Program previously published in AR 702–11, dated 7 November 2018.

B–6. Comments
Help make this a better tool. Submit comments to the Assistant Secretary of the Army (Acquisition, Logistics and Technology) via email at usarmy.pentagon.hqda-asa-alt.mbx.asa-alt-publication-updates@army.mil.

Glossary of Terms

Benchmarking
To study (something, such as a competitor's product or business practices) in order to improve the performance of one's own business.

Community of Practice
A group of people who regularly interact to collectively learn, solve problems, build skills and competencies, and develop best practices around a shared concern, goal, mission, set of problems, or work practice. CoPs cut across formal organizational structures and increase individual and organizational agility and responsiveness by enabling faster learning, problem solving, and competence building; greater reach to expertise across the force; and quicker development and diffusion of best practices. CoP structures range from informal to formal and may also be referred to as structured professional forums, knowledge networks, or collaborative environments.

Conformity
Compliance with applicable requirements standards, policies, regulations, and laws.

Continuous Improvement
Recurring activity to increase the ability to fulfill requirements.

Digital engineering
An integrated digital approach that uses authoritative sources of systems' data and models as a continuum across disciplines to support lifecycle activities from concept through disposal.

Nonconformity
Failure to comply with applicable requirements, standards, policies, regulations, or laws.

Partnership
A strategy leading to a relationship with suppliers or customer(s) aimed at reducing costs of ownership, maintenance of minimum stocks, just-in-time deliveries, joint participation in design, exchange of information on materials and technologies, new production methods, quality improvement strategies, and exploitation of market synergy.

Quality
The composite of materiel attributes including performance features and characteristics of a production or service to satisfy a customer's given need.

Quality management system
Management system to direct and control an organization with regard to quality.

Quality Program
A program that is developed, planned, and managed to carry out, cost-effectively, all efforts to affect the quality of materiel and services from concept through technology and system development, production, deployment, and disposal.

Supplier
Any provider whose goods and services may be used at any stage in the production, design, delivery, and use of another company's products and services. Suppliers include businesses, such as distributors, dealers, warranty repair, services, transportation contractors, and service suppliers, such as healthcare, training, and education. Internal suppliers provide materials or services to internal customer(s). An external producer, distributor, retailer, vendor, or contractor that provides a product, service, or information.

Validation
The process of determining the degree to which a model or simulation and its associated data accurately represent the real world from the perspective of the model's intended uses.

Verification
The process of determining that a model or simulation implementation and its associated data accurately represent the developer's conceptual description and specifications.