4 Hours ~ Manage Nuclear Quality

Nuclear Energy Executives

QL QM QA QC

Content From GQM Advisors
'Nuclear Management Systems' Course

~ Know ~

Safety-Related
=
Quality-Related

~ Time ~

Agree & Commit

4 Quality Disciplines

~ Understand ~

Roles | Focus

Each Discipline

Manage Quality ~ QL QM QA QC

Four Disciplines

Quality Leadership ~ QL The Department of the Navy's definition of QL is based on W. Edwards Deming's ideas. "The application of quantitative methods and the knowledge of people to assess and improve a) materials and services supplied to the organization, b) all significant processes within the organization, and c) meeting the needs of the end-user, now and in the future." U.S. Depart Of The Navy TQL In The Fleet Theory to Practice, J.Wasik, B.Ryan, 1993, AD-A275 444 92pgs.

Quality Management ~ QM That aspect of the overall management function that determines and implements quality policy. Quality management includes strategic planning, allocation of resources, and systematic activities for quality such as quality planning, operations, oversight, and evaluation.

Quality Assurance ~ QA Those planned and systematic activities implemented within the quality system that can be demonstrated to provide confidence that a product or service will fulfill requirements for quality.

Quality Control ~ QC Those actions that provide a means of control and measure of the characteristics of an item, process, or facility to established requirements (inspection or source surveillance, or both).

Manage Quality ~ QL QM QA QC

Typical Position Titles

Quality Leadership ~ QL

Chief Quality Officer, Executive Advisor, Sr. VP, Quality Leader (Head of), Sr. Consultant

Quality Management ~ QM

Vice President, Sr. Director, Advisor (System | Program), Sr. Associate, Consultant, Educator | Instructor, Continuous Improvement Lead, QM Professional

Quality Assurance ~ QA

Director, Manager, Engineer (Software, Supplier, Data, Process, etc.), Associate, Representative, Auditor, Assessor, Supervisor, Analyst, Statistician, Black Belt, Coordinator, Records Administrator

Quality Control ~ QC

Manager, Supervisor, Representative, Statistician, Inspector, Test Technician, Clerk

Manage Quality ~ QL QM QA QC

U.S. NRC ~ QM QA QC ~ 2008

Definitions and Discussions – Quality Management

Quality Management (QM), Quality Assurance (QA), and Quality Control (QC) each reference a distinct aspect in the focus of the NRC inspection staff.

Quality Management is a *systematic approach* to ensure customer and *performance results* meet their expectations.

QM establishes processes to ensure and measure customer satisfaction.

What is the Baldrige award?

How do its criteria affect present-thinking regarding QM?

U.S.NRC
UNITED STATES NUCLEAR REGULATORY COMMISSION
Protecting People and the Environment

29

Manage Quality ~ QL QM QA QC

Four Quality Disciplines

If you & your executive management do not understand the separate & collective roles & responsibilities of the four quality disciplines, how can your company plan / schedule / assign / implement technical & administrative controls to effectively manage nuclear quality?

'Many companies will not admit they do not understand the separate roles & responsibilities ~ they lump quality under one discipline'

~ Recipe for Failure ~

Manage Quality ~ QL QM QA QC

GQM nuclear advisors

MADE IN USA

Quality Control | Quality Assurance | Quality Management | Quality Leadership

1900 ~ 2020

QC | QA | QM | QL

Quality's Path to Leadership

Quality Affecting Significant Events

- 1912 RMS Titanic Atlantic Ocean (UK)
- 1941 World War II Mass Production (U.S.)
- 1955 Post-War Aerospace (U.S.)
- 1955 Naval Nuclear Program (U.S.)
- 1955 Atoms for Peace (Global Effort)
- 1960 Global Space Race (NASA, U.S.)
- 1968 Commercial Nuclear Power (U.S.)
- 1979 TMI Unit 2 (Pennsylvania, U.S.)
- 1984 NRC NUREG-1055 Report to Congress Nuclear Industry Quality / Safety / Management Failures (U.S.)
- 1986 Challenger Shuttle (U.S.)
- 1986 Chernobyl (Russia)
- 1988 Piper Alpha Oil Spill (North Sea)
- 1989 Exxon Valdez Oil Tanker Spill Prince William Sound (Alaska, U.S.)
- 2001 911 (New York City, U.S.)
- 2002 Prestige Oil Spill (Spain)
- 2002 Davis Besse' Reactor Head (Ohio, U.S.)
- 2003 Columbia Shuttle (U.S.)
- 2008 Metrolink Train (Southern CA, U.S.)
- 2008 B2 Bomber Crash (U.S.)
- 2010 Deepwater Horizon BP Oil Spill, Gulf of Mexico, 87 Days, (UK)
- 2011 Fukushima Daiichi (Japan)
- 2020 Coronavirus Pandemic Global COVID19

U.S. Quality Leaders Emerge

- Dr. Walter A. Shewhart
- Dr. Armand V. Feigenbaum
- Dr. Joseph M. Juran
- **Dr. W. Edwards Deming's Period of Influence**
  - 'System of Profound Knowledge'
  - Encompassed System, Variation, Knowledge, Psychology
  - 4 Lenses of Reference

Conformance to Requirements

"Quality is Free concept 1979"

Dr. Philip B. Crosby

Quality Management Tools

Risk Mitigation, SixSigma, QFD, FEMA, PDCA, C&E Diagraming, SPC, Control Charts, Remote Audits, Design / Contract Assurance, Lean, Process Mapping, Software, Modeling, Self-Assessments, CAPA, Drone Site Monitoring, Robot Inspections, Cyber Security, Others

2000 Work Cultures Emerge as Key Element to QMS Effectiveness

1990 Shift from 'Error Detection' to 'Error Prevention'

1990 U.S. Dept of Navy CNO Enacted Total Quality Leadership Concepts & Practices to Selected Fleet Units. *Goal: Process Improvements.* (1)

1977 DOE Formed

1971 OSHA Formed

Quality Assurance Emerges

1958 NASA & DARPA Formed

1957 First U.S. Nuclear Power Plant

"Cost of Poor Quality" U.S. Military Suppliers

Increased Emphasis on Quality | Safety

Quality Leadership

Who's Your ~ Chief Quality Officer ?

1987 Quality Management Systems (QMS)

- ISO 9001 QMS Certifications 1.4 Million
- U.S. Baldrige Quality Performance Program (Department of Commerce)
- Quality Management Consultants

Management Systems Industry & Government - Driven

- Environmental / Health / Safety Mgt
- Enterprise / Information Mgt
- Integrated Mgt
- Requirements Mgt
- Risk Mgt
- Emergency Prep Mgt
- Supply Chain Mgt
- Process Hazards Mgt
- Cybersecurity Mgt

Inspection / Testing

Mass Production

Complex Software

Quality Management

1913, U.S. DOL Created

World War II

Quality Assurance

1911, U.S. ASME BPVCs Boiler / Pressure Safety

Complex Engineered Products / Systems / Structures

1907, 60 Workers Died in Pittsburgh Factories

QC / SPC In - Process Inspection

1884, U.S. BLS Collects Data

Quality Control

Self - Inspection

Productivity Studies (SPC)

QRs

QRs

QRs

QRs

QRs

QRs Quality Requirements

Exxon Valdez, Prince William Sound 1989 Oil Tanker Spill, Alaska, U.S.

911, Twin Towers, U.S. 2001

Columbia Shuttle, U.S. 2003 Accident

Challenger Shuttle, U.S. 1986 Accident

Chernobyl, Russia Nuclear Power Plant 1986 Accident

Three Mile Island, U.S. Nuclear Power Plant 1979 Accident

BP Deepwater Horizon, UK 2010 Oil Spill

Fukushima Daiichi, Japan Nuclear Power Plant 2011 Accident

Quality 4.0 ~ Digital ASQ

COVID-19 Global Pandemic

1900 1910 1920 1930 1940 1950 1960 1970 1980 1990 2000 2010 2020 2030 2040 2050

https://gqmadvisors.com/wp-content/uploads/2024/06/GQMadvisors-1900-2024-Tmln-QC-QA-QM-QL-CQO-06-10-24-R1-1sld.pdf

Manage Quality ~ QL QM QA QC

Quality ~ Commercial Nuclear Energy

If You're New to Commercial Nuclear Energy Generation & Waste Management, Please Familiarize Yourself with Two Timelines. You'll See that 'The Management of Quality' BACKED ITS WAY INTO INDUSTRIES & BUSINESS from **Quality Control (circa 1900) to Quality Leadership (2000) d**uring a 100-year period.

It's Important to Know, that Most Quality Professionals Have Gained Their Body of Knowledge in 'Hands-On' Job Roles in the Quality Disciplines since 1900. Does this Method Foster Consistency Across Business Sectors, Segments, & Applications? Does this Method Foster Workforce Consistency? Does the nuclear workforce quality culture fully align with the shipbuilding, aviation, healthcare, & aerospace workforce quality cultures?

Very Few Universities & Colleges Offer BS / MS Degrees or General Studies in Quality Management. *Employees are Still Expected to Learn about the Management of Quality in Orientation Sessions which Makes Principles & Practices Company-specific.*

U.S. Commercial Nuclear ~ Quality Management

GQM nuclear advisors

1960 ~ 2025

1970 '79 TMI 1980 1990 2000 2005 2010 2020 2025 2030

Renaissance ~ AP1000 ~ U.S. NuStart Consortium 9 Utilities - Build 30 AP1000 Reactors

Accident Impacted - Design | Fabrication | Build | Startup | Operations <<<< Knowledge Transfer Gap >>>>

Renaissance ~ TBD
- SMRs > 80 Reactor Designers
- MMRs ~ TBD
- LNPPs > 25 Reactor Designs
- Fusion ~ TBD
- CS & AI ~ TBD

U.S. Quality Leaders Emerging
- Dr. Walter A. Shewhart
- Dr. W. Edwards Deming
- Philip B. Crosby
- Dr. Armand V. Feigenbaum
- Dr. Joseph M. Juran

'Conformance to Requirements'
1979 Concept Emerged

1960
Articles & Books on Quality

1960
Major Emphasis on Quality | Safety

1946
ISO Formed

1971
OSHA Regulations

1987
U.S. Reagan | Baldrige Performance Excellence

1987
Project Management Institute (PMI) Formed

Quality Management Systems (QMS)
- 1987 ISO 9001 QMS Standards Released

Quality Management Tools
- SixSigma, QFD, FEMA, PDCA, C&E Diagraming, Mapping, Software, Assessments
- 1995 ISO QMS Certified 75K

Enterprise Software
- Intra- & Internet
- e-QMS
- CMM Site Wide

Integrated Management Systems (IMS)
- IMS, QMS, EMS, RM, SCM, Others
- Requirements Matrix (Advanced)
- Process Hazards Mgt
- Enterprise Software (Advanced)
- Cyber Security
- Supply Chain Mgt (Advanced)
- Post 911 Safety / Security
- 2006 ISO 9001 QMS Certified .6 million, among 155 Countries

2012 ISO 9001 QMS Certified
1.1 mil, among 178 Countries

'Cost of Poor Quality' U.S. Military Supply Chain

ISO 9001 ISO 14001 ISO 45001 ISO 27001 oth r ISO Management System Certs. ISO 19443 N

2018 ~ New ISO 19443 Nuclear QMS

Numerous global non-nuclear industry sectors have been implementing ISO 9001 Quality Management Systems & quality tools since 1987. QMS certifications now exceed 1.5 million. Many nations require QMS certification as a part of product / service / system safety-basis certifications.

The U.S. NRC recognized ISO9001:2000 in 2003. This model also suggests the industry may require provisions for implementing "Integrated Management Systems."

1960 ~ 2025
65 Years ~ Will The Gap Close?

Will U.S. Nuclear Industry Executives Recognize & Integrate Advanced Quality Management Tools to Enhance Overall Operational Effectiveness?

1950 ~ 2000 LNPP Design | Build Period 65 LNPP Sites & 100 Power Reactors

2000 Renaissance ~ LNPP & SMR NPPs

2005 China AP1000 2 NPP Sites w/ 4 Reactors

2008 NuScalePower SMR -TBD

1957
IAEA Founded

App B, Needs Major Upgrade – Requirements Documents & Management of Quality Practices

1970 NRC QA Public Law 10CFR50 Appendix B | U.S 10CFR50 App B | U.S. Reg Guides | U.S. ASME/NQA-1 | U.S ANS 3.2 | CSA Z299 | IAEA-GS-R3

1984 Marble-Hill Cancelled $3.2 bil

1984 WH Zimmer Cancelled $ 3.4 bil

Operational ~ Vogtle 3 & 4 AP1K

2017 VC Summer AP1K Cancelled $9 bil

2016 mPower SMR Cancelled $400 mil

1950
Complex Engineered Products / Systems

1962
Mil-Q-9858A
UK BS-5750

1971
Industry Standards
ANSI N45.2 – 1971 QA
ANSI N45.2 – 1977 QA
ASME / NQA-1 – 1979 QA

1979 Accident Three Mile Island NPP

1986 Accident Chernobyl NPP

1984 U.S. NRC NUREG-1055 Report to Congress

2011 Accident Fukushima NPP

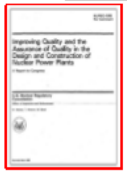
2010 BP Deepwater Horizon

2001 911 Twin Towers

Inspection | Test Era

1965
New Codes / Standards / Regulations

1974
NRC Regulatory Guides



1987 – ISO 9001 Quality Management Systems

EMS Shift 'Paper Work' to 'Information Work'

Culture
- Safety
- Quality
- Risk
- Security

Quality Control Programs

Quality Assurance Programs

RGs / Codes / Standards
Audits / Assessments / Oversight

QA, QC, Test, Supply Chain Management

Quality Engineering, Design Assurance

Quality Management Systems

Enterprise Management Software

Robotics

Integrated Management System

Cyber Security | AI

The U.S. chemical, oil, and gas industries have a history of QC, Inspection, & Testing as the methods for ensuring safety & specification compliance. In the mid-'60s, the nuclear industry initiated QA with the goal of "error prevention."
- Is the new generation of professionals well trained in U.S. NRC 10CFR50, App. B & ASME NQA-1 Quality Management Requirements?
- Does the nuclear industry recognize the 'Management of Quality' & its focus is driven by company executives & safety-related items?
- Do executives recognize & embrace advanced 'Quality Management Tools' available to enhance, safety, effectiveness, & compliance?
- Will industry members realize the benefits by unconditional Quality Management support?

Paul W. Gladieux ~
CEO | CQO | Founder

1960 QA | 1970 QE | 1980 QM | QMS 1990 EMS | 2000 IMS | 2010 Culture | 2020 CS | AI | 2030

GQMadvisors NMS-MNQ TmLn 04-09-25, R1 Fig 2

Manage Quality ~ QL QM QA QC

Quality ~ Understand Requirements Documents

- Quality Policy Statement ~ Company-specific

  Should every person working in the U.S. nuclear industry be mandated to sign / date an 'Important to Nuclear Safety' (Pledge to Quality Policy Statement) attesting to their efforts to comply with all requirements prior to performing safety-related work? *How else does the workforce collectively strive for the highest quality levels of delivery?*

- U.S. NRC 10CFR50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants
- U.S. NRC 10CFR52, Licenses, Certifications, and Approvals for Nuclear Power Plants
- U.S. NRC 10CFR Part 21, Reporting of Defects and Noncompliance
- U.S. ASME NQA-1, Quality Assurance Requirements for Nuclear Facility Applications
- U.S. DOE 10CFR830, Nuclear Safety Management
- U.S. DOE Order 414.1D, Quality Assurance
- ISO 9001:2015, Quality Management Systems (QMS) – Requirements
- ISO 19443:2018, Quality Management Systems (QMS) – Specific requirements for the application of ISO 9001:2015 by organizations in the supply chain of the nuclear energy sector supplying products and services important to nuclear safety (ITNS)
- Others, IEEE, IAEA

Manage Quality ~ QL QM QA QC

Quality ~ Consistency | Effectiveness

In 2025, there is an unprecedented number of entities globally & domestically developing new nuclear reactor, system, & fuel designs for commercial, industrial, military, space flight, & transportation energy supply demands. Advanced concept descriptions & predicted applications are reaching & shaping the news each day. The U.S. DOE & industry advocates are now using 'Nuclear Renaissance' during press briefings & in energy-related publications. The future use of nuclear fuels & related engineered containment systems is taking potential applications to a complete new level.

As advanced fuel & system design variations take shape & gain approvals, there is one constant that must prevail throughout the entire lifecycle of all safety-related products & services ~

'The Management of Quality Must Remain Constant with the Highest Standards, Efficiencies, & Effectiveness'

Manage Quality ~ QL QM QA QC

Quality ~ 'Important to Nuclear Safety (ITNS)'

- Should there be one nuclear industry-specific definition & use of the term Quality?
- Should there be specific & consistent use / application of the four quality disciplines?
- Should there be specific pre-requisites & qualifications for nuclear quality professionals in each of the four disciplines?
- Should the U.S. DOE & NRC require a person in the role of CQO in organizations engaged in safety-related product & services? Is the CQO a partner with the CNO?
- Should the U.S. take the Leadership Role in eliminating confusion about The Management of Quality?
- Should every person in the U.S. nuclear industry be mandated to sign / date an 'Important to Nuclear Safety' (Pledge to Quality Policy Statement) attesting to their efforts to comply with all requirements prior to performing safety-related work?

Manage Quality ~ QL QM QA QC

Organize for Quality ~ Cost of Poor Quality

CEO

CxO | **CIO** | **CFO** | **CQO** | **COO** | **CNO** | **CTO**

CFO — **CQO**

Operational | Programs
Cost | Schedule | Delivery

Cost of Poor Quality

- Design
- Materials | Equipment
- Workmanship
- Supply Chain

Quality Requirements Management
ID | Accounting | Measure Conformance
Audit | Assess | Surveillance | Peer Review | Verify

Cost Management
Cost Code | Track | Report | Measure Performance

Manage Quality ~ QL QM QA QC

Nuclear CQO in the C-Suite

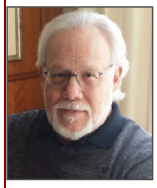
- Is Westinghouse Nuclear Still the Only Nuclear Company with a CQO? Why?
- Without a CQO, which C-Suite Executive 'Automatically Wears the Quality Leadership Hat'? Isn't This a High-Risk Situation?
- Without a CQO, How are KPIs & Corrective Actions Understood, Addressed, Improved?
- Without a CQO, Are Employee Concerns Communicated to C-Suite Members?
- Shouldn't Your Quality Director / Manager Report at the Correct Level ~ CQO?
- Perhaps Review the Timelines & 'Quality's Path to Leadership.'

Manage Quality ~ QL QM QA QC

Is Your Top Quality Leader in the C-Suite?

SHARE Q

Is There One Common Sense Reason to Keep a CQO Out of Your C-Suite?



Paul W. Gladieux
CEO|CQO|Founder
Global Quality
Management Advisors

Scott B. Kaley
Captain (Ret.)|Executive Advisor
Global Quality
Management Advisors

Quality Business
NZOQ Issue 1, 2025

NEW ZEALAND ORGANISATION FOR QUALITY INC
& AUSTRALIAN ORGANISATION FOR QUALITY LTD

https://gqmadvisors.com/wp-content/uploads/2025/03/QB-2025-1-CQO-PWGladieux-SBKaley-03-01-25-11pgs.pdf

U.S. NRC ~ Quality

What is the U.S. NRCs Definition of Quality?

U.S. DOE ~ Quality

What is the U.S. DOEs Definition of Quality?

Manage Quality ~ QL QM QA QC

U.S. DOE ~ 10CFR830 Safety Management System Specific

Quality means the condition achieved when an item, service, or process meets or exceeds the user's requirements and expectations.

Quality Assurance means all those actions that provide confidence that quality is achieved.

Quality Assurance Program (QAP) means the overall **program or management system** established to assign responsibilities and authorities, define policies and requirements, and provide for the performance and assessment of work.

Safety basis means the documented safety analysis and hazard controls that provide reasonable assurance that a DOE nuclear facility can be operated safely in a manner that adequately protects workers, the public, and the environment.

Safety class structures, systems, and components means the structures, systems, or components, including portions of process systems, whose preventive or mitigative function is necessary to limit radioactive hazardous material exposure to the public, as determined from safety analyses.

Safety evaluation report means the report prepared by DOE to document:
(1) The sufficiency of the documented safety analysis for a Hazard Category 1, 2, or 3 DOE nuclear facility;
(2) The extent to which a contractor has satisfied the requirements of Subpart B of this part; and
(3) The basis for approval by DOE of the safety basis for the facility, including any conditions for approval.

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U.S. DOE ~ 10CFR830 Safety Management System Specific

Safety limits means the limits on process variables associated with those safety class physical barriers, generally passive, that are necessary for the intended facility function and that are required to guard against the uncontrolled release of radioactive materials.

Safety management program means a program designed to ensure a facility is operated in a manner that adequately protects workers, the public, and the environment by covering a topic such as: Quality assurance; maintenance of safety systems; personnel training; conduct of operations; inadvertent criticality protection; emergency preparedness; fire protection; waste management; or radiological protection of workers, the public, and the environment.

Safety management system means an integrated safety management system established consistent with 48 CFR 970.5223-1, *Integration of environment, safety, and health into work planning and execution.*

Safety significant structures, systems, and components means the structures, systems, and components which are not designated as safety class structures, systems, and components, but whose preventive or mitigative function is a major contributor to defense in depth and/or worker safety as determined from safety analyses.

Safety structures, systems, and components means both safety class structures, systems, and components and safety significant structures, systems, and components.

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U.S. DOE ~ 10CFR830 Safety Management System Specific

Service means the performance of work, such as design, manufacturing, construction, fabrication, assembly, decontamination, environmental restoration, waste management, laboratory sample analyses, inspection, nondestructive examination/testing, environmental qualification, equipment qualification, repair, installation, or the like.

Surveillance requirements means requirements relating to test, calibration, or inspection to ensure that the necessary operability and quality of safety structures, systems, and components and their support systems required for safe operations are maintained, that facility operation is within safety limits, and that limiting control settings and limiting conditions for operation are met.

Technical safety requirements (TSRs) means the limits, controls, and related actions that establish the specific parameters and requisite actions for the safe operation of a nuclear facility and include, as appropriate for the work and the hazards identified in the documented safety analysis for the facility: Safety limits, operating limits, surveillance requirements, administrative and management controls, use and application provisions, and design features, as well as a bases appendix.

Manage Quality ~ QL QM QA QC

In Modern Times ~ Definitions Emerged

There are several quality definitions, some industry-specific, that have emerged over the past 10 decades. The most important aspect is that each person understands the applicable definition used by their employer or customer and continually pursues improvements and excellence in what work they perform. The world has improved in endless ways because of the pursuit of quality improvement. Definitions have emerged over time. There are probably others.

- For starters, quality can be represented by how time and energy is being used to accomplish tasks
- A degree of excellence
- fitness for intended use
- Conformance to requirements
- Superiority in kind
- Customer satisfaction
- Fitness for use
- Doing things right the first time
- Zero defects
- It can represent how many ISO9001 requirements are met
- The degree to which an item or process meets or exceeds the user's requirements and expectations

Manage Quality ~ QL QM QA QC

What's Your Definition of Quality?

Does it Align With Your Workplace Products & Services?

Is Quality Clear in Your Vision, Mission, Value, Policy Statements?

True Operational & Program Effectiveness ~ Excellence

Requires A Consensus & Consistent Use Of Your Definition & Application

Requires Deliberate Focus On The Management of Quality

Who Defines Quality in Your Organization?

Why is it Critical to Have a Clear & Consistent Definition of Quality?

High-Risk & High-Consequence Safety-Related Products & Services Must be Designed, Produced, & Supplied in the Best Form & Function as Possible for End Users.

Engineers & Designers are 'The Specifiers' of Quality-Level Requirements & Performance Expectations for Safety-Related Products & Services for Protecting Life, Safety, Health, Security, & Environments.

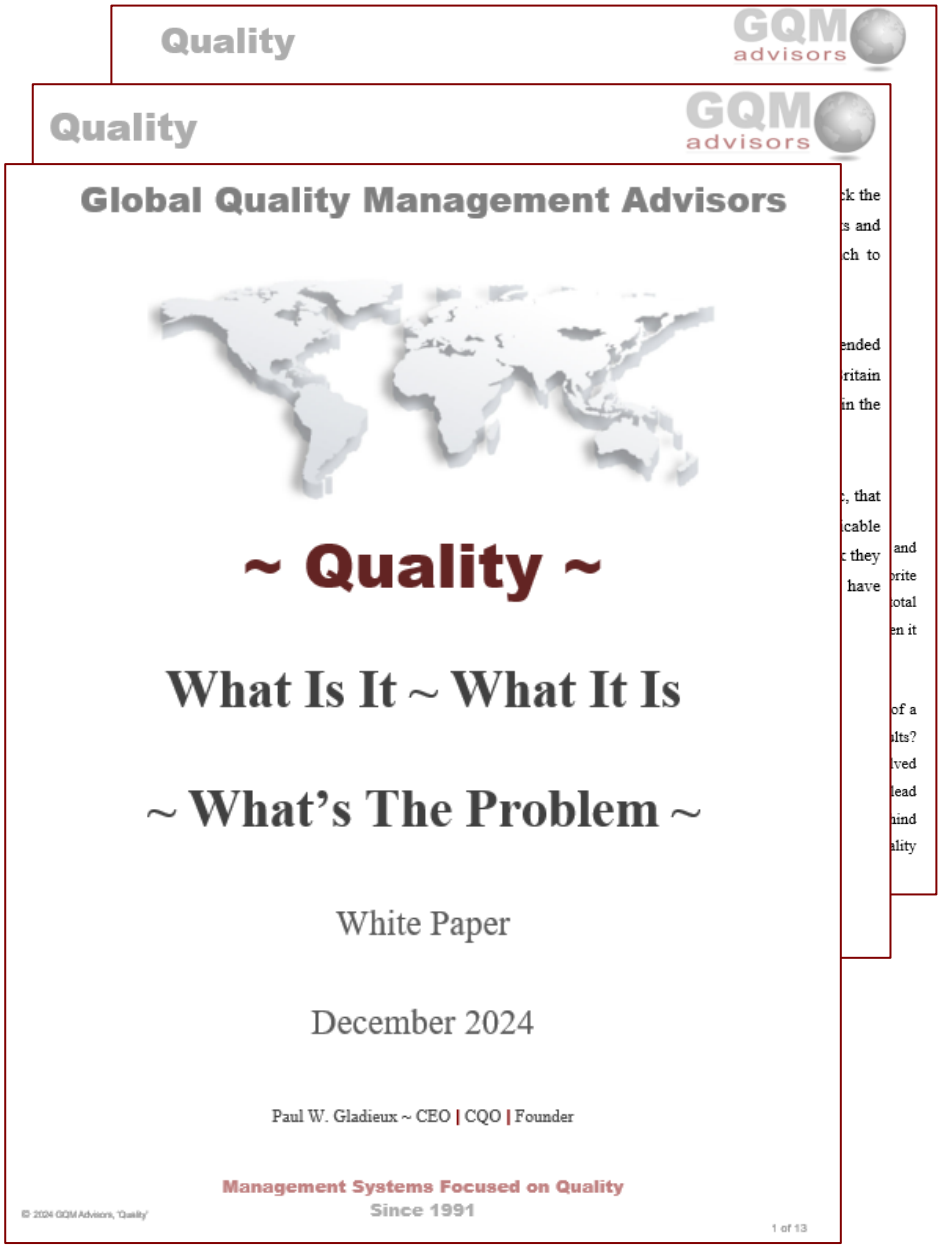
Image Being in a Plane at 40K Feet NOT DESIGNED for the Highest Quality & Safety?

~ Specifying Engineers Define Quality in the U.S. Nuclear Industry ~

Manage Quality ~ QL QM QA QC

High-Quality ~ A Global Imperative w/ Direct Impact on Safety, Health, Environments, Cost, Schedule, Security, Profit, Consistency, Contract | Regulatory Compliance, Competition, Customer Satisfaction, Effectiveness, & Humanity

Manage Quality ~ QL QM QA QC



White Paper ~ December 2024

It's my goal to provide readers and researchers what I've learned the past 50 years working in and learning about The Management of Quality. What a fascinating career in a number of business sectors making efforts to ensure basic quality principles, practices, and policies where appropriate for each application. My efforts included using the art of patience, kindness, and active listening as I helped define quality management commitments then make efforts to implement.

https://gqmadvisors.com/wp-content/uploads/2025/03/GQMadvisors-Quality-12-15-24-13pgs.pdf

Manage Quality ~ QL QM QA QC

Abstract

In this paper, I share 50 years of working knowledge performing in high-consequence heavily regulated business sectors (mostly startups) regarding 'The Management of Quality.' Considerable content is from the GQM Advisors white paper of September 2024, (P.W. Gladieux & S.B. Kaley), ***Your C-Suite & CQO, 'Is There One Common Sense Reason to Keep a CQO Out of Your C-Suite'?***[1] *My insights are from extensive experience in management systems engaging in Nuclear Energy Operations (7 years, 4 power reactors ~ Entergy Operations), Supply Chain Services (more than 30 suppliers), Reactor Design Suppliers (Westinghouse Nuclear, NuScale Power, TerraPower, BWX Technologies), Large Scope Design/Build Programs (Jacobs Engineering Group, 5 years), Custom Engineered Products (12 years). These engagements were in complex management systems in high-risk / high-value sectors. I explore and pose questions regarding the critical role of 'The Management of Quality' and attempt to clarify the word 'Quality' and the role of the 'Quality Discipline' in business operations and programs.* ***I will consider this paper a success, if it helps one or some organizations establish their basis for adopting a definition of Quality and gaining Quality Performance Improvements in Practice.***

Manage Quality ~ QL QM QA QC

What is Quality ? ~ The Never-Ending Question

Isn't quality a simple understanding of what you like and dislike or what works and doesn't work? Isn't it shopping and finding a sweater that fits perfectly, compliments your wardrobe, and helps you feel good? Isn't it having your favorite food on a Saturday evening with your favorite friends? If your friends pick up the tab, perhaps you've experienced 'total satisfaction.' Perhaps it's having your favorite cake with family members on your birthday. We know what it is when it comes to our personal quality of life.

Come Monday morning, we're on our way to work to make a living and contribute to the goals and objectives of a business enterprise. Isn't it true you enter an environment of requirements that must be met to achieve specified results? Are you showing up for what will be a great week or, will your week start with numerous unknowns: nagging unsolved supplier problems, needing to wear three hats because of an operational RIF two weeks ago, trying to influence the lead design engineer on your proposed solutions, or overly concerned about the procurement group always being behind schedule with a compliance audit beginning in two days. Every week, we face another week of meeting quality requirements in our work life.

Paul W. Gladieux ~ Professional Goal

My goal is to assist anyone making efforts to properly define 'The Management of Nuclear Quality.' Please contact me if you have questions, comments, or need for assistance.

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https://gqmadvisors.com/professional-resources/advisors/#teamMember8

Paul W. Gladieux, CEO | CQO | Founder – More than 45 Years
GQM Advisors, Management Systems Professional

Expertise
Expertise encompasses all aspects of defining, designing, requirements baselining, structuring, writing, deploying, and upgrading effective management systems in multiple sectors. Systems range from simple commercial to complex high-hazard safety-related requiring: requirements management matrix development, large-scope information management systems (data/documents/records/reports), complex multi-site assessments and sustaining analysis. Mastery in baselining management system startups, upgrades, turnarounds. Working knowledge of national/international codes, standards, regulations, and stipulations encompassing U.S. ASME, U.S. DOE Orders, ISO Standards, U.S. NRC Regulations/NUREGs/CFRs, IAEA Standards, U.S. Baldrige Performance Criteria, and others. Over 10K hours engaged in management system assessments (1983 ASME/NQA-1 Nuclear Lead Assessor certified, and 1994 U.S. and UK ISO QMS Lead Assessor certified - six sectors). Service marked 'GQM Advisors Management Systems Focused on Quality Since 1991.'

GQM Advisors ~ Mastery

GQM ADVISORS WAS FOUNDED IN 1991 on the belief the "Management of Quality is a fundamental responsibility of everyone engaged in the delivery of products & services." We are a group of leading Independent Quality-focused Professionals with a reputation of mastery & excellence in deploying the Four Quality Disciplines > QL, QM, QA, & QC. The Group understands that all business disciplines must be quality-focused for an organization to achieve annual goals & objectives delineated in its Quality Management System (QMS).

Arizona	Nevada	Tennessee
California	New Jersey	Texas
Colorado	North Carolina	Utah
Florida	Ohio	Virginia
Georgia	Oregon	Washington
Michigan	South Carolina	Washington, DC
	Canada	
	Netherlands	
	United Kingdom	

Since 1991

Since 1974

https://gqmadvisors.com/professional-resources/advisors/

Advisors collective expertise exceeds 1,000 years encompassing more than 50 Business Sectors | Segments | Applications. Our established relationships in various industries, societies, agencies, business peer groups, & supply chains enables us to align the never-ending mix of management systems baseline requirements in virtually any operation and program environment. Our experiences vary & span a 50-year period beginning in the early 1970s.

Global Quality Management Advisors

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