

Quality Management System Requirements for Service Supply Organizations for the Petroleum and Natural Gas Industries

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May: As used in a standard, “may” denotes a course of action permissible within the limits of a standard.

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Introduction

This specification has been developed to address the development and implementation of quality management systems for service supply organizations working in the upstream petroleum and natural gas industries. This specification defines the fundamental requirements of quality management systems for those service supply organizations claiming conformity to this specification.

The requirements of this specification are consistent with those of other quality management system documents. This specification provides additional requirements that target the execution of services or provision of service-related products in the execution of the service. The requirements are structured in a way to minimize the likelihood of nonconformity during the execution of a service and/or provision of service-related product.

While this specification may include some elements of other quality management systems (such as those particular to environmental management, occupational health and safety management, financial management, or risk management), it does not include all requirements specific to those systems. This specification may be used either in conjunction with or independent of other industry-specified documents. This specification can be used by internal and external parties, including certification bodies, to assess the organization's ability to meet customer and legal requirements applicable to service execution and the organization's own requirements.

This specification promotes the integration of a process approach into the application of specific requirements when developing, implementing, and improving the effectiveness of a quality management system, thereby providing continuous control over the stated requirements, as well as facilitating the overlap of processes.

For a service supply organization to function effectively, it must determine and manage numerous linked activities. An activity that transforms inputs into outputs can be considered a process. Process activities include determination of need throughout the service supply organization, provision of resources, provision of service-related product, identification of the proper sequence or order in a series of activities, monitoring and measuring the effectiveness of the activities performed, and applying changes or corrections to those activities as needed.

Goal of the Specification

The goal of this specification is to identify the minimum requirements for the development of a quality management system that provides for continual improvement, emphasizes the prevention of nonconformities, and strives to minimize variation and waste from service supply organizations. It is designed to promote reliability in service supply organizations for the upstream petroleum and natural gas industries.

Applicability of API Specification Q2

API Specification Q2, *Specification for Quality Management System Requirements for Service Supply Organizations for the Petroleum and Natural Gas Industries*, establishes the quality system requirements necessary for service supply organizations to consistently and reliably provide services that meet customer, legal, and other applicable requirements. This specification applies to service-related activities in oil and gas well construction, intervention, production, and abandonment, as well as repair, maintenance, and configuration of service-related product. API Q2 does not apply to the API Monogram Program or any product that is identified by license as eligible for marking with the API Monogram.

It is the responsibility of the service supply organization to ensure that an adequate quality management system (QMS) is in place for outsourced activities, including those associated with repair and remanufacture of service-related product. This could be in conformance to API Q1, API Q2, ISO 9001, or a system defined by the service supply organization that is appropriate for the scope of work. Conformance to API Q2 for outsourced activities is not required by this specification.

Changes from the First Edition to the Second Edition

Highlights of some of the significant changes between the first and second editions include:

- alignment with API Q1 verbiage where applicable;
- removal of the reference to the outdated version of ISO 9000;
- addition of requirements a) through e) to Human Resources section (4.3.2);
- addition of supply chain to Purchasing Control (5.6.1);
- alignment of Control of Testing, Measuring, Monitoring, and Detection Equipment with API Q1 (5.8);
- addition of Control of TMMDE to list of exclusions;
- removal of Preventive Actions section.

Quality Management System Requirements for Service Supply Organizations for the Petroleum and Natural Gas Industries

1 Scope

This specification defines the quality management system (QMS) requirements for service supply organizations for the petroleum and natural gas industries. It is intended to apply to the execution of services for the petroleum and natural gas industry. This includes, but is not limited to, activities such as well construction, intervention, production, and abandonment as well as repair/maintenance/configuration of service-related product.

If an organization performs activities addressed by this specification, including the provision of service-related product (SRP) and outsourced activities, no claims to exclusion of those requirements are permitted. Where SRP is not required for the execution of the applicable service, the basis for claiming exclusions is to be identified. Furthermore, such exclusions cannot affect the organization's ability or responsibility to meet customer and applicable regulatory requirements. Exclusions are limited to requirements within the following clauses:

- 5.7.3 Identification and Traceability;
- 5.7.4 SRP Status;
- 5.7.6 Preservation of SRP;
- 5.7.7 Validation of SRP;
- 5.7.8 Preventive Maintenance, Inspection; and Test Process.
- 5.8 Control of Testing, Measuring, Monitoring and Detection Equipment (TMMDE)

Where claims of conformity are made, exclusions will be identified in conjunction with these claims.

Information marked "NOTE" are not requirements but are for guidance in understanding or clarifying the associated requirement.

2 Normative References

The following document is referred to in the text in such a way that some or all of the content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any addenda) applies.

ISO 9000, *Quality management systems—Fundamentals and vocabulary*

3 Terms, Definitions, Abbreviations, and Acronyms

3.1 Terms and Definitions

For the purposes of this specification, the terms and definitions given in ISO 9000 and the following apply. When identical terms are defined in ISO 9000 and this specification, the following definitions apply.

3.1.1

acceptance criteria

Specified limits of acceptability applied to process, service-related product, or component characteristics.

3.1.2

acceptance inspection

Demonstration through monitoring, evaluation, or measurement that the service or service-related product (SRP) conforms to specified requirements.

3.1.3

calibration

The comparison to a standard of known accuracy or comparison of results against testing, measuring, monitoring, and detection equipment (TMMDE), and making any needed adjustments.

NOTE Calibration of non-adjustable equipment can be referred to as “verification.”

3.1.4

collection

The process of obtaining, assembling, and/or organizing applicable documented information with the intent of meeting the requirements for control of records (see 4.5).

3.1.5

compliance

The act or process of satisfying the legal and other applicable requirements of a regulation or regulatory body.

3.1.6

critical spare part

A spare part whose individual failure would cause the inability of a critical service-related product to perform its designated function.

3.1.7

critical service-related product

critical SRP

An SRP whose failure is likely to cause non-productive time (NPT), failure to provide required service deliverables, release of hydrocarbons, or serious injury or fatality (SIF).

3.1.8

critical service

A service whose failure to be executed successfully is likely to cause non-productive time (NPT), failure to provide required service deliverables, release of hydrocarbons, or serious injury or fatality (SIF).

3.1.9

critical supplier

A supplier providing critical SRP or critical service.

3.1.10

critical success factor

CSF

An element of service that is essential to achieve goals or stated objectives.

3.1.11

design acceptance criteria

Defined limits placed on the characteristics or condition of materials, products, or services established by the organization, customer, and/or applicable specifications to achieve conformity.

3.1.12

document (*noun*)

A piece of written, printed, or electronic matter that provides information or evidence, or that serves as an official record.