TECHNICAL SPECIFICATION

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Conformity assessment — Requirements for bodies providing audit and certification of management systems —

Part 5: Competence requirements for auditing and certification of asset management systems

Évaluation de la conformité — Exigences pour les organismes procédant à l'audit et à la certification des systèmes de management —

Partie 5: Exigences de compétence pour l'audit et la certification des systèmes de gestion d'actifs

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of conformity assessment, the ISO Committee on conformity assessment (CASCO) is responsible for the development of International Standards and Guides.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

Draft International Standards are circulated to the national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

In other circumstances, particularly when there is an urgent market requirement for such documents, a technical committee may decide to publish other types of document:

— an ISO/IEC Publicly Available Specification (ISO/IEC PAS) represents an agreement between technical experts in an ISO working group and is accepted for publication if it is approved by more than 50 % of the members of the parent committee casting a vote;

— an ISO/IEC Technical Specification (ISO/IEC TS) represents an agreement between the members of a technical committee and is accepted for publication if it is approved by 2/3 of the members of the committee casting a vote.

An ISO/PAS or ISO/TS is reviewed after three years in order to decide whether it will be confirmed for a further three years, revised to become an International Standard, or withdrawn. If the ISO/PAS or ISO/TS is confirmed, it is reviewed again after a further three years, at which time it must either be transformed into an International Standard or be withdrawn.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO/IEC/TS 17021-5 was prepared by the *ISO Committee on conformity assessment* (CASCO).

ISO/IEC 17021 consists of the following parts, under the general title *Conformity assessment — Requirements for bodies providing audit and certification of management systems*:

— *Part 2: Competence requirements for auditing and certification of environmental management systems* [Technical Specification]

— *Part 3: Competence requirements for auditing and certification of quality management systems* [Technical Specification]

— *Part 4: Competence requirements for auditing and certification of event sustainability management systems* [Technical Specification]

— *Part 5: Competence requirements for auditing and certification of asset management systems* [Technical Specification]

The next revision of ISO/IEC 17021:2011 will reflect the different parts and will become ISO/IEC 17021-1.

Introduction

This Technical Specification complements ISO/IEC 17021:2011. In particular, it clarifies the requirements for the competence of personnel involved in the certification process set out in ISO/IEC 17021:2011, Annex A.

The guiding principles in ISO/IEC 17021:2011, Clause 4, are the basis for the requirements in this Technical Specification.

Certification bodies have a responsibility to interested parties, including their clients and the customers of the organizations whose management systems are certified, to ensure that only those auditors who demonstrate relevant competence are allowed to conduct asset management system audits.

It is intended that all asset management system auditors possess the generic competencies described in ISO/IEC 17021:2011, as well as the specific asset management system competencies described in this Technical Specification.

Certification bodies will need to identify the specific audit team competence needed for the scope of each asset management system audit. The selection of an asset management system audit team will depend upon various factors, including the client's products, services and asset types.

Complex multi-site audits or audits of larger organizations will require sufficient competent resources to ensure consistency, and enable moderation, of audit results.

The competence requirements for those reviewing the audit report and making the certification decision and other personnel involved in certification activities are also described.

In this Technical Specification, the following verbal forms are used:

— "shall" indicates a requirement;

— "should" indicates a recommendation;

— "may" indicates a permission;

— "can" indicates a possibility or a capability.

Further details can be found in the ISO/IEC Directives, Part 2.

Conformity assessment — Requirements for bodies providing audit and certification of management systems —

Part 5: Competence requirements for auditing and certification of asset management systems

1 Scope

This Technical Specification complements the existing requirements of ISO/IEC 17021:2011. It specifies additional competence requirements for personnel involved in the certification process for asset management systems.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 17000, *Conformity assessment — Vocabulary and general principles*

ISO/IEC 17021:2011, *Conformity assessment — Requirements for bodies providing audit and certification of management systems*

ISO 55000, *Asset management — Overview, principles and terminology*

ISO 55001, *Asset management — Management systems — Requirements*

ISO 55002, *Asset management — Management systems — Guidelines for the application of ISO 55001*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 55000, ISO/IEC 17000 and ISO/IEC 17021:2011 apply.

4 Generic competence requirements

Personnel involved in asset management certification activities shall have the generic competencies described in ISO/IEC 17021:2011 and the asset management knowledge described in Clauses 5 and 6.

NOTE 1 It is not necessary for each auditor in the audit team to have the same competence, however, the collective competence of the audit team needs to be sufficient to achieve the audit objectives.

NOTE 2 Knowledge concepts (i.e. concepts pertaining to the required knowledge for the principles of asset management) are given in ISO 55000. Concepts pertaining to the required knowledge for the asset management system requirements are given in ISO 55001. Concepts pertaining to the required knowledge for the application of ISO 55001 are given in ISO 55002.

5 Competence requirements for the asset management system audit team and those reviewing the audit report and making the certification decision

5.1 Asset management terminology, definitions and principles

The audit team and those reviewing the audit report and making the certification decision shall have knowledge and understanding of:

— terms, definitions and asset management principles as contained in ISO 55000 and their application;

— the interaction between financial and non-financial (including technical) decision making;

— application of financial management principles relevant to asset management.

5.2 Asset management practices, activities and methodologies

The audit team and those reviewing the audit report and making the certification decision shall have knowledge and understanding of relevant asset management practices, activities and methodologies, and their application.

NOTE Asset management practices, activities and methodologies usually involve a balance between technical, non-financial and financial aspects and can include the following:

a) asset registration practices;

b) decision-making and prioritization processes;

c) asset management-related tools and methods;

d) life cycle costing (LCC) approach;

e) risk management approaches;

f) capital, operational and maintenance planning and implementation;

g) statistical sampling techniques.

5.3 Asset management system standards and normative documents

The audit team and those reviewing the audit report and making the certification decision shall have knowledge and understanding of:

a) relevant asset management system standards (ISO 55000, ISO 55001) and other normative documents used in the certification process and different audit situations;

b) the application of relevant asset management system standards, including ISO 55002;

c) the interaction between the elements of the asset management system standards and other relevant documents.

5.4 Business management practices

The audit team and those reviewing the audit report and making the certification decision shall have knowledge and understanding, as appropriate, of:

a) approaches to determine asset value to the organization;

b) outsourcing[1].

1) ISO 37500, currently under development, will provide additional information.

5.5 Client business sector

The audit team and those reviewing the audit report and making the certification decision shall have knowledge, understanding and application, as appropriate, of terminology, processes, technology and asset types specific to the client sector.

5.6 Client products and services, processes and organization

The audit team and those reviewing the audit report and making the certification decision shall have knowledge, and understanding, where applicable, of the client's:

a) legal, regulatory and statutory requirements;

b) key contractual or other stakeholder requirements;

c) asset management activities and their relationship with other organisational activities;

d) performance monitoring and measurement.

NOTE Specific knowledge of the above requirements is expected to be obtained during stage 1 of the audit.

6 Competence requirements for other personnel

Other personnel shall have knowledge and understanding of products, services and asset types specific to the client sector.

NOTE Other personnel are those conducting the application review to determine the required audit team competence, to select the audit team members, and to determine the audit time.