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ISO/IEC 17021-2: 2016

Competence requirements for auditing and certification of environmental management systems

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Competence Requirements For Auditing And Certification Of Environmental Management System

ISO/IEC 17021-1: 2015

Requirements for bodies providing audit and certification of management systems (Part 1: Requirements)

ISO/IEC TS 17021-2 (2012 & 2016)

Requirements for bodies providing audit and certification of management systems (Part 2: Competence requirements for auditing and certification of environmental management systems)

ISO/IEC 17021-1:2015 - Clause 7 Resource Requirements

7.1 Competence of personnel

Determination of competence criteria (Environmental technical area)

a) Annex A specify knowledge and skills that CB shall define for specific functions

- Application review
- Audit report review & certification decision
- Auditing and leading audit team

b) Additional specific competence criteria established in TS 17021-2

ISO/IEC 17021-1:2015, Annex A.1 Table of knowledge and skills

- Knowledge of business management practices (A 2.1)
- Knowledge of audit principles, practices and techniques (A 2.2)
- Knowledge of specific management system standards / normative documents (A 2.3)
- Knowledge of certification body's processes (A 2.4)
- Knowledge of client's business sector (A 2.5)
- Knowledge of client products, processes and organisation (A 2.6)

ISO/IEC 17021-2

- Clarifies requirements for the competence of personnel set out in 17021-1, Annex A
- The guiding principles in 17021-1, Clause 4.3 remain the basis for 17021-2
- All EMS auditors should possess the generic competencies in 17021-1 as well as the specific EMS knowledge described in 17021-2
- CB shall identify the specific team competence for scope of each audit. Selection of team will depend on EMS technical area, client organisation, its environmental aspects and site where these aspects occur
- Defined competence requirements for other CB personnel

ISO 17021-2 What's been changed?

- The updated ISO 14001:2015 edition means new competencies needed to audit the management system
- It reflects the greater focus of the ISO 14001 on expected outcomes.
- The difference between sustainable development and sustainability has been clarified.
- More information on understanding the “context” of an organization.
- New competency requirements for auditing the reliability of client communications about their EMS.

ISO TS 17021-2 - Structure

Clause 2 - Normative references

- ISO 14001: 2015 –Environmental management systems –Requirements with guidance for use
- ISO/IEC 17021-1

Clause 3 -Terms and definitions

- Terms and definitions given in ISO/IEC 17021-1, and
- EMS technical area – area characterized by similar activities, products or services and the related environmental aspects.

ISO TS 17021-2 - Structure

Clause 4: Generic competence requirements

- CB shall define competence requirements for each relevant technical area and for each function in the certification activity.
- CB shall take into account all the requirements specified in Clauses 5, 6 & 7 in this TS (Note: Clauses 5&6 for auditors and Clause 7 for other personnel).
- Tables A.1 & A.2 summarize the competence requirements for personnel involved in specific certification functions.

ISO 17021-2 - Structure

ISO/IEC TS 17021-2

Annex A –Table A.1 Knowledge of EMS auditing and certification

- Environmental terminology
- Environmental metrics
- Environmental monitoring techniques appropriate to the aspects and EMS technical area
- Techniques for evaluation of environmental aspects and impacts and their environmental significance
- Environmental aspects of design
- Environmental performance evaluation
- Legal and other requirements
- Emergency preparedness and response
- Operation control
- Factors related to the site

ISO TS 17021-2 - Structure

Clause 5: Competence requirements for EMS auditors

- All personnel involved in EMS auditing shall have a level of competence that includes the generic competencies (17021-1) as well as the EMS knowledge described in 5.1 to 5.14 (new).

Note 1: Environmental risk and complexity related to an organisation and its products or services are other considerations when deciding the level of knowledge

Note 2: The collective competence of the audit team needs to be sufficient to achieve the audit objectives.

ISO TS 17021-2 - Competence requirements for EMS auditors

5.2 Environmental terminology

Knowledge of environmental terms, definitions and concepts as used within an EMS (new).

(Note: Concepts include intended outcomes and environmental sustainability and sustainable development).

5.3 Environmental metrics

Knowledge of the quantification of environmental outputs applicable to the EMS and applicable compliance obligations.

ISO TS 17021-2 - Competence requirements for EMS auditors

5.4 Environmental monitoring and measurement techniques

Knowledge of environmental monitoring and measuring techniques and analytical methods appropriate to the environmental aspects and EMS including calibration and equipment maintenance

5.5 Environmental aspects and impacts

Knowledge of techniques for the identification of environmental aspects and impacts and the determination of their environmental significance.

ISO TS 17021-2 - Competence requirements for EMS auditors

5.6 Life cycle perspective

Knowledge of life cycle concepts and how an organization can apply a life cycle perspective to its products and services.

(NOTE For definition of life cycle see ISO 14001:2015, Clause 3.3.3 and also Annex A, A 6.1.2.)

5.7 Environmental performance evaluation

Knowledge of environmental performance evaluation methods, including indicators, sufficient to determine whether an organization's environmental performance is achieving the intended outcomes of an EMS.

(NOTE ISO 14031 provides further information on environmental performance evaluation).

ISO TS 17021-2 - Competence requirements for EMS auditors

5.8 Compliance obligations

Knowledge and skills to determine whether an organization has determined its EMS related compliance obligations, and evaluated fulfilment of its EMS related compliance obligations.

(NOTE For definition of compliance obligation see ISO 14001:2015, 3.2.9)

5.9 Emergency preparedness and response

Knowledge sufficient to determine whether an organization has identified potential emergency situations and planned relevant responses.

Knowledge sufficient to evaluate an organization's effectiveness in testing its emergency responses and responses to actual emergencies if applicable.

ISO TS 17021-2 - Competence requirements for EMS auditors

5.10 Operational control

Knowledge of the use of operational controls consistent with an organization's significant environmental aspects including the use of contractors to achieve objectives and targets and ensure consistency with its environmental policy and its commitment to the prevention of pollution and continual improvement.

5.11 Factors related to sites

Knowledge of site-related factors that might influence the potential impacts of an organization's aspects on the surrounding areas, ecosystems and communities. Site factors include geography, climate, hydrogeology, topography, soil and other site-related physical conditions.

ISO TS 17021-2 - Competence requirements for EMS auditors

5.12 Scope

Knowledge and skills to determine that the scope of an EMS is appropriate within the context of an organization.

5.13 Communicated information

Knowledge and skills related to auditing of communicated information to enable the audit of the reliability of relevant environmental information related to the EMS.

(NOTE: This includes knowledge of factors impacting upon reliability, such as transparency, appropriateness, truthfulness, factuality/accuracy, completeness and intelligibility)

ISO TS 17021-2 - Competence requirements for EMS auditors

5.14 Context of the organisation

Knowledge and skills to determine that an organisation has identified the external and internal issues, including environmental conditions relevant to the context in which it operates that have the potential to affect the organization ability to achieve the intended outcomes of its EMS.

Knowledge and skills to determine that an organisation has identified the needs and expectations of interested parties relevant to an organisations' EMS.

5.15 Risks and opportunities

Knowledge of methods for determining risks and opportunities and how these methods can be applied in an organizational context.

Knowledge and skills to determine if an organization has appropriately identified and addressed the risks and opportunities related to its context, environmental aspects and compliance obligations.

ISO TS 17021-2 - Structure

Clause 6 - Aspect-specific competence requirements for EMS auditing

An audit team shall be appointed that is composed of auditors (and technical experts as necessary) having the collective competence to undertake the audit.

The certification body shall define the specific competence criteria related to each aspect appropriate to the EMS technical area(s) which it operates and consistent with the requirements specified in 6.1 to 6.8.

ISO TS 17021-2 - Aspect-specific competence requirements for EMS auditing

6.2 Emission to air

6.3 Releases to land

6.4 Releases to water

6.5 Use of raw materials, energy and natural resources

6.6 Energy emitted

6.7 Waste

6.8 Use of space

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Clause 7 - Competence requirements for other personnel

The certification body shall define competence requirements for other personnel involved in the certification functions as given in 7.1, 7.2, 7.3.

These functions can be fulfilled by one or more persons.

ISO TS 17021-2 - Competence of personnel conducting the application review to determine the audit team competence required, to select the audit team members and to determine the audit time.

7.2.1 Environmental terminology

Knowledge of environmental terms and definitions.

7.2.2 Environmental aspects and impacts

Knowledge of environmental aspects and associated impacts.

7.2.3 Factors related to site

Knowledge of site-related factors, including

7.2.4 Scope

ISO TS 17021-2 - Competence of personnel reviewing audit reports and making certification decisions

7.3.1 Environmental terminology

7.3.2 Environmental aspects and impacts

7.3.3 Environmental performance evaluation

7.3.4 Compliance obligations

7.3.5 Scope