



CASCO

How to develop schemes for the certification of persons

Guidance of ISO/IEC 17024



Considerations and guidance on **Clause 8 of ISO/IEC 17024** for scheme development for certification of persons

Introduction

Conformity assessment includes activities used to ensure products, processes, services, persons, systems and bodies meet specified requirements. These activities can include testing, inspection, evaluation, examination, auditing, assessment, declaration, certification, accreditation, peer assessment, verification and validation. CASCO is the ISO committee that develops standards for conformity assessment bodies.

ISO and IEC have published ISO/IEC 17024, *Conformity assessment – General requirements for bodies operating certification of persons*. ISO/IEC 17024 contains requirements a certification body needs to comply with to demonstrate it is competent to certify persons for a specific scope. ISO/IEC 17024 is unique amongst the CASCO toolbox in that Clause 8 of ISO/IEC 17024 contains specific requirements for certification scheme owners. In order to meet the

requirements of ISO/IEC 17024, a certification body must demonstrate that the certification scheme for persons meets Clause 8 of ISO/IEC 17024.

Every conformity assessment scheme must have a scheme owner. A scheme owner can be the conformity assessment body itself, a governmental authority or some other third party. In the absence of an identifiable third party scheme owner, any conformity assessment body wishing to provide evaluation for a scheme must take on the responsibility for the scheme ownership. Where the certification scheme for persons is owned by another body it is referred to as an external scheme owner.

The purpose of certification of persons is to measure the competence of individuals. Competence is defined as the ability to apply knowledge and skills to achieve intended results and can be independent of qualification.

Some ISO Technical Committees have been developing standards that they specifically intend to be used by certification bodies for certifying persons in accordance with ISO/IEC 17024. When used in this way, these standards or normative documents form part of a certification scheme and should address clause 8 of ISO/IEC 17024.

This document was developed to assist ISO Technical Committees and external organizations that develop certification schemes for persons or develop competence criteria for subsequent use in certification schemes for persons to do so in a manner that allows the certification scheme to be used by a certification body operating in accordance with ISO/IEC 17024. It is important that ISO Technical Committees and other organizations developing certification schemes for persons understand the scheme requirements contained in Clause 8 of ISO/IEC 17024.





Scheme owners do not have to conform to Clause 8 of ISO/IEC 17024 unless they want to be in conformance with ISO/IEC 17024. Where a certification body wants to be in conformance with ISO/IEC 17024 and the certification scheme does not meet the requirements of ISO/IEC 17024, the certification body must supplement or change the scheme to bring it into conformance with Clause 8 of ISO/IEC 17024. This document contains information to be considered by the scheme owner to enable it to meet Clause 8 of ISO/IEC 17024. This document does not contain requirements.

Confidence in the respective certification schemes for persons is achieved by means of a globally accepted process of assessment, and periodic re-assessments, of the competence of certified persons. It is important therefore that ISO committees developing standards for use in person certification schemes and other external scheme owners follow the guidance in this brochure to ensure consistency in the format, structure and process across all schemes for persons. Only the harmonization of the system for developing and maintaining certification schemes for persons can establish the environment for mutual recognition and the global exchange of personnel.

Scope – Development of a scheme for persons

The scope of this document is limited to Clause 8 of ISO/IEC 17024:2012. It covers the requirements for the following six areas:

- Certification scheme categories
- Elements of a certification scheme
- Process requirements
- Development and review of the certification scheme
- Continual review and validation of the scheme for persons
- Obligations of the scheme owner

Although many aspects of scheme development for persons could be addressed in this document, it is limited specifically to the above mentioned requirements.



Related documents

The following documents are necessary background reading:

- ISO/IEC 17024:2012, *Conformity Assessment – General requirements for bodies operating certification of persons*
- ISO/IEC TS 17027:2014, *Conformity Assessment – Vocabulary related to competence of persons used for certification of persons*

Definitions

The following terms are used in this document.

Certification scheme for persons

competence and other requirements related to specific occupational or skilled categories of persons (ISO/IEC 17024 and ISO/IEC 17027). *For example there are schemes for the certification of “Food Auditors”, “Welders” and “Cyber Security Specialists.”*

Scheme owner

organization responsible for developing and maintaining a certification scheme. *NOTE: The organization can be the certification body itself, a governmental authority, or other. (ISO/IEC 17024 and ISO/IEC 17027)*

Scope of certification

range and nature of specific tasks that a certified person is expected to be able to perform competently, by virtue of holding a specific certification that is within a certification scheme (ISO/IEC 17027).

Scope of certification scheme

extent and boundaries of a certification scheme (ISO/IEC 17027)

Interested party

individual, group or organization affected by the performance of a certified person or the certification body (ISO/IEC 17024 and ISO/IEC 17027)

Qualification

demonstrated education, training and work experience, where applicable (ISO/IEC 17024 and ISO/IEC 17027).

Examples of qualifications include successful completion of a training or apprenticeship programme or a university diploma.

Certification scheme for persons – Requirements

ISO/IEC 17024 is unique amongst the CASCO standards in that it contains not only requirements for the certification body but also requirements for the certification scheme. The certification scheme requirements are contained in Clause 8 of ISO/IEC 17024 and these requirements must be met in order to conform to ISO/IEC 17024.

The following sections address each requirement of **Clause 8** (*Scheme requirements*) and provides information on the intent of each requirement. The purpose is to assist scheme developers to meet Clause 8 of ISO/IEC 17024. For convenience, the wording of each clause has been highlighted in blue.



8.1 There shall be a certification scheme for each category of certification

The certification body is responsible for ensuring that there is a certification scheme. The certification scheme can be developed by the certification body, by an external organization or a combination thereof. Regardless of who develops or owns the certification scheme, there must be a scheme for every category of certification. However, a scheme can cover more than one category of certification.

A category of certification is a specific profession, occupation or skill set related to a job. For example, a category of certification in relation to crane operation could be tower crane operation, overhead crane operation, rigging or mobile crane operation. A certification scheme could be developed for each of these categories. An example of a scheme covering more than one category would be a scheme that covers the categories of auditor and lead auditor.



8.2 A certification scheme shall contain the following elements

a) Scope of certification

The scope of the certification scheme is a description of the range and boundaries that apply. It informs the certified person and other interested parties of the nature and limits of the certification.

A scope description can be :

- a job title (*e.g. sous chef, fire fighter*)
- a certification title (*e.g. certified quality management auditor*)
- a phrase (*e.g. energy auditor for commercial and multi residential building envelopes*)
- a more detailed description of the certification (*e.g. certified digital media salespersons are consultative, critical thinking, marketing professionals tasked with driving revenue by selling digital advertising. They accomplish this by understanding the digital ecosystem, competency in the area of digital media sales, and are dedicated to upholding high standards of ethical and professional practice in the industry*)

b) Job and task description

Every job is made up of a number of different tasks. A task is a job related activity. A certification scheme contains a description of the tasks required to perform the job. The scheme developer determines the extent to which the tasks are described.

A certification scheme can also include the context in which the tasks are performed.

For example, the job and task description for a certification scheme for commercial airline pilots includes the context of the specific type of aircraft operated by the pilot.

c) Required competence

After the tasks have been defined for a specific job, the knowledge and skills are identified. Competence is the ability to apply the knowledge and skills to achieve the intended results (to perform the tasks competently). A certification scheme for persons contains a way to verify the tasks, knowledge and skills required to perform the job competently.

d) Abilities (when applicable)

It may be necessary depending on the nature of a job to define the required abilities. Abilities are natural talents and aptitudes. Abilities can include physical capabilities such as vision, hearing and mobility.

An example of a scheme including physical abilities would be a scheme requiring a firefighter to lift a certain weight.

e) Prerequisites (when applicable)

Prerequisites are the qualifications or competence required by a certification scheme for persons before one can be certified.

An example of a prerequisite is requiring completion of safety training prior to certification.

Prerequisites are not always necessary. When prerequisites are part of the certification scheme for persons they must be related to the competence requirements (Clause 8.4.c of ISO/IEC 17024).

f) Code of conduct (when applicable)

A code of conduct is a statement of expected behaviors of the certified person. It can contain a description of professional, ethical or behavioral norms.

8.3 A certification scheme shall include the following certification process requirements :

Clause 8.3 of ISO/IEC 17024 contains certification scheme elements that are related to the certification process.

a) Criteria for initial certification and recertification

A certification scheme for persons must include the criteria for both initial certification and recertification.

Examples of criteria for initial certification might include prerequisites or assessment/examination, or any other requirements for issuance of certifications (e.g. background checks).

Clause 9.6 of ISO/IEC 17024 defines the requirements for the recertification process. Examples of criteria for recertification might include (Clause 9.6.5 of ISO/IEC 17024) :

- On site assessment
- Professional development
- Structured interview
- Confirmation of continuing satisfactory work and work experience records
- Examination
- Checks on physical capability.



b) Assessment methods for initial certification and recertification

The assessment methods selected for initial certification will be dependent on the scheme competence requirements. Assessment methods can include written, oral, practical and observational examinations.

For example, if the scheme competence requirements include assessing keyboarding speed, then a practical examination might be used.

The certification scheme for persons can also specify the depth, length and content of the examination. By depth it is meant the degree of detail of knowledge and skills. By length it is meant the length of the examination in terms of number of questions or the time allowed to take the examination. By content it is meant the percentage of an examination devoted to each subject area.



c) **Surveillance methods and criteria (if applicable)**

In some instances surveillance is a requirement of a scheme. Surveillance is the periodic monitoring of a certified person's performance between certification and recertification to ensure continued compliance with the certification scheme. To determine the need for surveillance the scheme owner takes into consideration factors such as changing technology, length of recertification cycle, risk and consequences of incompetence.

For example, if a welding certification is valid for 10 years, a surveillance activity such as an onsite observation could be conducted in the interim.

d) Criteria for suspending and withdrawing certification

The criteria for suspending or withdrawing the certification are included in the certification scheme for persons.

Examples of conditions under which the certification can be suspended or withdrawn are a violation of the code of conduct, failure to comply with the scheme requirements, unsatisfactory surveillance results or inability to continually fulfil the competence requirements of the scheme.

e) Criteria for changing the scope or level of certification (if applicable)

When applicable, the scheme should describe the criteria to be fulfilled when the scope or level of certification is changed.

An example of changing the scope of certification is a certification body expanding the scope of certification for a food inspector certified to inspect meat to include the inspection of fresh produce. An example of reducing the level is a certification body reducing the level of certification of a certified level 2 Non-Destructive Testing person to a level 1, due to inactivity associated with level 2 in accordance with the scheme criteria.

8.4 The certification body shall have documents to demonstrate that, in the development and review of the certification scheme, the following are included:

Scheme developers have to maintain documents to demonstrate that the development of the scheme includes a) through e) below if the certification scheme for persons is to be used by certification bodies operating in accordance with ISO/IEC 17024. These documents should be available to the certification body.

a) The involvement of appropriate experts

The certification body has to have access to documents to demonstrate the involvement of appropriate experts in the development of the certification scheme for persons. The scheme developer should document which experts were involved in the development of the scheme and should provide evidence of the relevance of their expertise if the certification scheme for persons is to be used by certification bodies operating in accordance with ISO/IEC 17024. The expertise should be linked to the competencies of the scheme. ISO Technical Committees that develop schemes should document and maintain records of the appropriateness of the expertise used to generate the scheme for persons.

b) The use of an appropriate structure that fairly represents the interests of all parties significantly concerned, without any interest predominating

The certification body has to have access to documents to demonstrate the interests of all parties significantly concerned were represented in the development of the certification scheme for persons. Scheme developers should have documents to show how they fairly represented interested parties, without any interest predominating.

If the documentation does not exist or is unavailable, certification bodies would have to conduct additional activities to ensure that the interests of all parties significantly concerned are given an opportunity to provide feedback without any interest predominating.

c) The identification and alignment of prerequisites, if applicable, with the competence requirements

The certification body must have access to documents to demonstrate that prerequisites are aligned with the competence requirements. Scheme developers should demonstrate how the prerequisites were identified, the rationale for the selection of specific prerequisites and how they are related to the competence requirements if the certification scheme for persons is to be used by certification bodies operating in accordance with ISO/IEC 17024.

An example of a prerequisite not related to competence requirement could be requiring a university degree in engineering as a prerequisite for certification as a bricklayer.





d) The identification and alignment of the assessment mechanisms with the competence requirements

The certification body has to have access to documents that identify the assessment mechanisms. The certification body also has to have access to documents that show the assessment mechanisms are aligned with the competence requirements. This requires documentation that shows the knowledge and skills associated with the tasks are included in the assessment mechanisms. However the assessment mechanisms should not include assessment of knowledge and skills beyond the competence requirements defined by the scheme.

The scheme developer should maintain documents that link the assessment mechanisms to the competence requirements if the certification scheme for persons is to be used by certification bodies operating in accordance with ISO/IEC 17024.

e) A job or practice analysis that is conducted and updated to:

- Identify the tasks for successful performance
- Identify the required competence for each task
- Identify prerequisites (if applicable)
- Confirm the assessment mechanisms and examination content
- Identify the recertification requirements and interval



The certification body must have access to documents that demonstrate a job or practice analysis was conducted as part of the development of the scheme. A job analysis is a method used to identify the tasks and the associated competence. Methods generally involve analysis of the associated tasks, knowledge, skills and/or abilities that constitute competence as required by the scope of work. Job analysis provides the basis for the validity of any assessments used in issuing credentials. Other terms for job analysis are job-task analysis, practice

analysis, performance analysis and role-delineation study. The documented job analysis must identify the tasks and the required competence (knowledge and skills) and provides the basis upon which to determine the prerequisites, if any, and recertification requirements. There are several methods for conducting a job analysis such as interviews, focus groups, surveys and job observation. Regardless of the method used, sufficient detail should be provided to assist in the development of fair and valid assessments.



8.5 The certification body shall ensure that the certification scheme is reviewed and validated on an on-going, systematic basis.

For a certification scheme for persons to remain relevant it is necessary for the scheme to be regularly reviewed because jobs, tasks, knowledge, skills and technologies change over time. Scheme owners should regularly update the scheme and document how it is reviewed and validated on an on-going, systematic basis if the certification scheme for persons is to be used by certification bodies operating in accordance with ISO/IEC 17024.

The certification scheme for persons must keep up to date with current practices. The period between reviews should be based on the frequency of changes to jobs, tasks, knowledge, skills and technologies. Validation involves verifying the scheme content with a representative group of experts. One method of conducting a validation is by surveying experts.

8.6 When the certification body is not the scheme owner of a certification scheme it implements, the certification body shall ensure that the requirements contained in this Clause (Clause 8) are met.

Certification bodies are often the scheme owner of certification schemes for persons they implement. However, in situations where the certification body is not the scheme owner of a certification scheme it implements, it can often be difficult to obtain the evidence that the requirements of Clause 8 of ISO/IEC 17024 are being met. Certification bodies are encouraged to work with external scheme owners to ensure that certification schemes for persons are developed and maintained in accordance with Clause 8.



In situations where the scheme owner does not have the evidence of conformity with Clause 8 or does not develop the certification scheme for persons in conformity with Clause 8, certification bodies will not be in conformance with ISO/IEC 17024 if they use the scheme to develop a certification for persons. If the certification scheme for persons is to be used by certification bodies operating in accordance with ISO/IEC 17024, certification bodies must conduct additional activities to bring the certification scheme for persons into conformity with Clause 8. However, this may not always be possible or may require permission from the scheme owner.

Regardless of who owns the certification for persons scheme, conformance with Clause 8 of ISO/IEC 17024 will help to create a certification that is valid and robust. This will in the end, benefit certification bodies, certified persons and other parties significantly concerned.

About ISO

ISO (International Organization for Standardization) is an independent, non-governmental international organization with a membership of 161* national standards bodies. Through its members, it brings together experts to share knowledge and develop voluntary, consensus-based, market-relevant International Standards that support innovation and provide solutions to global challenges.

ISO has published more than 21000* International Standards and related documents covering almost every industry, from technology to food safety, to agriculture and healthcare.

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