



The World Organisation for NDT

ICNDT Guide to best practice management by Certification Bodies

to achieve integrity, impartiality
and independence



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October 2024

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1. Introduction

In June 2017, a leading Certification Body managed by an International Committee for Non-Destructive Testing (ICNDT) member had to take drastic action to correct a fraud that had been perpetrated by an Authorised Qualifying Body (AQB). This affected the AQB, its managers and all certificate holders who had acquired certificates through examinations conducted by this AQB. In all, over 3000 certificate holders were affected, with most working in the oil & gas sector in the Middle East region. Clearly, the fraud caused significant disruption. Although the corrective actions taken by the Certification Body put an abrupt stop to this particular fraud, the ramifications continued for months. The Certification Body dealt with hundreds of appeals and has tracked the 3000-plus certificate holders who were required to take a re-examination if they wished to reacquire their certification. The correction process extended over a year; however, the Certification Body's actions helped to restore stakeholders' confidence in the scheme.

ICNDT Working Group 1 (WG1) has developed these guidelines to prevent a similar situation and reduce the risk for a Certification Body in delivering ISO 9712 personnel certification. Members who are signatories of the ICNDT Multilateral Recognition Agreement (MRA) Schedule 2 should extend their best efforts to minimise occurrences such as those described above during the operations of the Certification Body. There should be procedures and control measures in place to eliminate fraud during the operations of the Certification Body. The purpose of this document is also to provide a guidance note for Certification Body operations with respect to training, examination and managing impartiality. This document is a standalone document and should be used to provide guidance on procedures and best practices.

2. Structure of the Certification Body

The Certification Body should be structured in such a manner as to guarantee stakeholders that all requirements of ISO/IEC 17024 and ISO 9712 are fulfilled. The Certification Body should have its own examination centre or it should administer examinations through an AQB.

As education and training are prerequisites, the Certification Body should recognise training organisations to be sure that training is conducted according to its requirements. However, the Certification Body should not state or imply that certification would be simpler, easier or less expensive if any specified education/training services are used.

It is highly recommended that the Certification Body should recognise training provided by organisations that are recognised by another Certification Body as listed in Schedule 2 of the ICNDT and European Federation for Non-Destructive Testing (EFNDT) MRAs.

The Certification Body providing training must operate as a distinct legal entity, ensuring there are no board members, management or staff shared with any other entity. It is advisable to maintain separate financial operations and infrastructure. Additionally, personnel Certification Bodies should not be affiliated with any training-related legal entities.

3. Outsourcing

The Certification Body can outsource work related to certification, excluding decision-making.

The Certification Body should have a legally enforceable agreement or contract covering the arrangements, including confidentiality and conflicts of interest, with each body that provides outsourced work related to the certification process.

The Certification Body could use an AQB or an Authorised Examination Centre (AEC) to outsource the examination services, for example if a Certification Body operates in different cities or overseas from its registered headquarters. The outsourced organisation shall be audited at regular intervals to determine compliance to the standards and the Certification Body's operating procedures, including examination capabilities (minimum number of approved specimens and examiners, maximum number of admissible candidates per non-destructive testing (NDT) method and examiner/invigilator), as defined by the Certification Body, for each of the AQBs and AECs.

When outsourcing of examinations is planned, the Certification Body should deliver the theoretical examination through an online computer-based system where the questions are kept under the control of the Certification Body (this practice should be implemented within five years from the publication of this document). If this is not the case, the Certification Body should provide a set of question papers that should be generated randomly from the approved collection of questions. The question papers should be refreshed in a timely manner to prevent risk normalisation.

The Certification Body should have procedures for training and monitoring the examiners for ethical practices, supervising and grading the examinations.

The Certification Body should conduct a risk assessment based on its operational models. When a higher risk assessment is accepted by the Certification Body, adequate control measures should be established.

The following are some areas that should be considered when conducting a risk assessment:

- When conducting examinations through outsourcing, the Certification Body should evaluate the profile and experience of the organisation with which it associates. This process should include:
 - Availability of examiners, such as permanent, contracted, etc
 - Number of examinations conducted by the AQB or AEC within a given period of time (exceeding the limits of examination capability by the centre would trigger a cause for investigation)
 - Whether there may be a collusion between training and examination if managed by the same organisation.

If a Certification Body or its management had past fraudulent records, this would be considered as a high-risk profile.

Risk assessment should be an ongoing process and should be continuous and evolving. The Certification Body should bear full responsibility for outsourced work. A sample risk assessment for outsourcing is included in Appendix A for reference.

4. Applications

The Certification Body should have documented procedures to review and verify applications for certification. The Certification Body or its Authorised Qualifying Body should review the application forms for every candidate for whom certification is sought. The review should include verification that vision, training, experience and examination requirements are fulfilled. All application forms for every candidate should be transmitted to the Certification Body. One of the recommended methods would be to collect the applications through an online method, with the necessary evidence and eligibility for approval.

When an application is reviewed by the Authorised Qualifying Body, the Certification Body should use a sampling exercise to ensure verification checks and reviews are being conducted.

Eligibility shall not be determined by any individual who has trained the candidate for the examination for a period of two years from the date of conclusion of the training.

5. Examination Question Bank

ICNDT recommends the use of the ICNDT Examination Question Bank questions for general examination and specific examination for the applicable methods, sectors and levels.

6. Practical examination

All practical examinations should be supervised by an invigilator or examiner. This may be done in two ways:

- a) A fully supervised practical examination by a practically competent invigilator or examiner.
- b) A practical examination supervised by an invigilator and monitored by an examiner online through a full-vision zoomable video camera.

Note 1: An invigilator should not be allowed to supervise relevant examinations performed by any candidate that they have trained for the examination for a period of two years from the date of conclusion of the training and/or who is working (permanently or temporarily) in the same facility as the invigilator.

7. Instruction writing/procedure writing

Codes and standards for instruction writing and procedure writing examination should be provided by the examination centres in hard copy or electronic format as appropriate.

8. Decision on certification

The Certification Body should make a decision on certification after verifying that all requirements such as training, visual acuity, experience and passing of all parts of the certification scheme's examination are met.

The fee charged for examination or certification should be the same irrespective of the result.

Appendix A: Sample risk assessment for AQB/AEC

Name of applicant		
Date of application		
Country of applicant		
Location in country		
Type of application		
Methods and techniques		
Corruption index of country		
Raw data collection	Yes/No/Partially	Comments
Suitability of premises		
Suitability of equipment		
Suitability of staff		
Location of another training/ examination organisation		
Any current sanctions: www.gov.uk/government/ publications/the-uk-sanctions- list		
Rating on corruption index: www.transparency.org/en/ cpi/2023 (ensure latest version is used)		
Number of centres in region		
Age and reputation of organisation (if known)		
Travel restrictions: www.gov. uk/foreign-travel-advice		
Does the organisation hold ISO 9001:2015 certification?		
Is there a business plan to support the application?		
Conclusion of risk analysis		
Application approved?		
Date of review:		
Review conducted by:		

SWOT analysis (quantitative risk matrix)

OF THE APPLICANT	STRENGTH				
	Number	Description	Importance	Score	Value
	1	Suitable premises	High	Medium	2
	2	Suitable quality management system (QMS)	High	High	3
	3	Suitable equipment	High	Medium	2
	4	Suitable manpower for ATO	High	High	3
	5	Suitable manpower for AEC	High	High	3
	6	Supporting business plan	High	High	3
	7	ISO 9001:2015 certified (NDT only)	High	High	3
	8				
	9				
	10	Total			19
	11	% of strength <i>versus</i> target		90.5%	
	12	% of score against weakness		59.4%	
	15				

OF THE APPLICANT	WEAKNESS				
	Number	Description	Importance	Score	Value
	1	Certification body already established in area (Yes)	Medium	Medium	2
	2	Familiarity with organisation (Yes/Owners)	High	Low	1
	3	Ability to monitor through drop-ins? (Yes)	High	Medium	2
	4	Supporting documents supplied? (Yes)	High	Low	1
	5				
	6				
	7				
	8				
	9				
	10				6
	11	% of weakness <i>versus</i> target		54.5%	
	12	% of score against strength		18.8%	
	15				

TO CERTIFICATION BODY	OPPORTUNITY				
	Number	Description	Importance	Score	Value
	1	Develop scheme in new territory	Medium	Medium	2
	2	Increase revenue streams (ATO only)	Medium	Medium	2
	3	Increase brand awareness	High	High	3
	4	Support for existing certification holders	High	High	3
	5	Supporting demand for region	Medium	Medium	2
	6				
	7				
	8				
	9				
	10				12
	11	% of opportunity <i>versus</i> target		100%	
	12	% of opportunity <i>versus</i> threat		40%	
	15				

TO CERTIFICATION BODY	THREAT				
	Number	Description	Importance	Score	Value
	1	Corruption index of country	High	Low	1
	2	Travel restrictions (Yes)	High	Low	1
	3	Payment from organisation	High	Medium	2
	4	Damage to reputation	High	Low	1
	5	Security of CB personnel (Protocol)	High	Low	1
	6	Complexity of travel to organisation (Easy)	High	Low	1
	7				
	8				
	9				
	10				7
	11	% of achievement of target		38.9%	
	12	% of threat <i>versus</i> opportunity		23.3%	
	15				

Acknowledgements

ICNDT extends its sincere appreciation and gratitude to the members listed below, forming the task group from Working Group 1, for their invaluable contribution to the development of the document titled *ICNDT Guide to Best Practice Management by Certification Bodies to Achieve Integrity, Impartiality and Independence*.

Their expertise, commitment and collaborative spirit have significantly enriched the content of this important guide, which serves as a cornerstone for ensuring the highest standards of integrity, impartiality and independence within Certification Bodies operating in the field of non-destructive testing.

Their diligent efforts, insightful inputs and meticulous attention to detail have played a pivotal role in shaping the document into a comprehensive resource that will benefit practitioners, organisations and stakeholders across the global NDT community.

ICNDT acknowledges the below individuals for their exceptional contributions and expresses its gratitude for their unwavering dedication to advancing best practices and upholding the principles of excellence in the field of non-destructive testing.

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