The World Organisation for NDT

ICNDT Conformity Assessment of PCB

ICNDE

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BACKGROUND

The International Committee for NDT seeks to enhance the applications of NDT in industry through a number of initiatives, including:

- A bank of >6,000 multi-choice questions (EQB) for use by registered NDT personnel certification bodies (PCB) in qualification examinations
- A Multilateral Recognition Agreement (MRA) made between NDT societies and PCB– world-wide
- Conformity Assessment of NDT PCB through 'recognised' accreditation bodies (AB) or by direct assessment conducted by ICNDT using qualified and registered systems assessors



ICNDT MRA

➢MRA depend upon assurance of compliance with applicable standards, such as EN ISO 9712, which mandates compliance with ISO/IEC 17024

Compliance can be demonstrated through ICNDT 'recognised' accreditation, e.g., by an AB that is signatory to the EA MLA for ISO/IEC 17024 accreditation

Involves peer review in accordance with <u>ISO/IEC 17040</u>

 [Conformity assessment - General requirements for peer assessment of conformity assessment bodies and accreditation bodies]

Similar system long overdue in the International Accreditation Forum (IAF)

>If ICNDT 'recognised' accreditation is not available ...

 ICNDT offers a conformity assessment service for PCB, conducted in accordance with ISO/IEC 17040



ICNDT Conformity Assessment of PCB

- >A service that is provided principally in support of its Multilateral Recognition Agreement (MRA)
- Arises from a perception that accreditation assessments:
 - are variable between AB within the IAF(as stated previously, there is presently no IAF MLA based upon <u>ISO/IEC 17040</u>)
 - are usually not conducted by knowledgeable NDT experts
 - do not fully address the technical requirements of EN ISO 9712
 - do not provide a strong technical harmonising influence, and

+ are not, in many cases, considered cost-effective

ICNDT PCB Conformity Assessment can be used to replace or compliment assessment by an AB



ICNDT PCB CONFORMITY ASSESSMENT

- Conducted against same criteria as applied by AB, i.e. ISO/IEC 17024, but also includes detailed assessment against EN ISO 9712 criteria
- Assessment 'team' comprises one or more experts (NDT Level 3) with relevant auditor qualifications and experience
- Time on assessment similar to that of AB, e.g. three days - one or two days at HQ, and one day at Authorised Examination Centre (AEC)
- Provides the harmonising influence lacking under IAF accreditation
- >Fee structure is similar or less than that charged by AB



APPLICATION AND ASSESSMENT

To demonstrate conformity under the ICNDT system, the applicant PCB shall:

- make formal application to ICNDT for assessment against EN ISO 9712 (and normative reference ISO/IEC 17024)
- undergo assessment by an ICNDT appointed team of expert assessors to demonstrate compliance with the relevant criteria.
- sign an undertaking to comply with the ICNDT Code of Practice (COP) for NDT PCB,

Audits of PCB must adequately assess compliance with the applicable standards, and will include ...





ASSESSMENT OF PCB

- ≻Test Specimens
- ≻Specifications
- ≻Master reports







ASSESSMENT OF PCB

- ≻Security
- >Examination facilities
- ➢Personnel
- Fairness, validity and reliability of examinations









FAIRNESS, VALIDITY AND RELIABILITY

- ➢Are functions of
 - Specifications for specimens
 - Validation of questions
 - Compilation of examinations
- Continuous improvement

	ional Committee for NDT ition Question Database
Paper Generation Function	s Statistical Functions
Edit/View Questions/Papers	Count Questions for Given Sector/Method/Level Codes
Print Papers	Count Syllabus References for Given Sector/Method/Level Codes
View Archive	Summarise All Questions by Sector/Method/Level
View/Edit Sector Codes	
View/Edit Method Codes	
Export to Word	Exit
Import from Word	



ICNDT Examination Question Database					
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Copy Archive Question inventory	Next Previous Go to Go to	History Notes Question info	Add current Add block Remove selected Preview Freeze Auto-generate Question of questions Question Paper content Paper info		
Question Viewer/Editor and Paper Viewer/Generator					
Number: 0001 Sector Codes: Nethod Code: HA Answer: A Translated Spanish: Paper Ref: Levet: 1 Validated: N Translated Other: Contains Questions: By: Difficulty: 3 Date: English Spanish: Image: Contains Questions: Which of the following answers is correct if a human being is subjected to low doses of X or gamma radiation? a) the cumulative effect and maximum permissible dose is to be taken into consideration b) radiation is useful because it improves the immune system c) it has no effect on human beings d) it has only short term effect on living tissue Syllabus Source Number: Validation Source Number: Validation Source Number: Source					
+ -) Displayed to Sector: All	+ Method:		zen:	

ANNOUNCEMENT AND OBLIGATIONS

A '<u>certificate of conformity</u>' is awarded by ICNDT following a final review of the application and assessment reports.

The PCB which have been assessed and confirmed in conformance with specified standards by the ICNDT will be listed and published at <u>www.icndt.org</u>

Once certified as in conformity with defined standards by the ICNDT, PCB are obliged to:

Register under the ICNDT MRA

Comply with the ICNDT <u>Code of Practice for NDT PCB</u>



VALIDITY AND REASSESSMENT

Provided obligations are complied with, the ICNDT certificate of conformity is valid for a period of three years from the date of issue (or when accreditation expires – whichever is sooner)

Extensions to scope, e.g., to include additional NDT methods, or to serve additional industry or product sectors, are confined to establishing compliance with relevant technical standards.

Certification is renewed following a further full ICNDT assessment.



CONCLUSIONS

>ICNDT PCB Conformity Assessment is:

Conducted in accordance with recognised standard (<u>ISO IEC</u> <u>17040</u>)

➢Provided principally to underpin the ICNDT MRA

- ➢ Relevant to the needs of industry
- ➤Appropriate in terms of applicable standards
- Conducted by registered assessors having relevant NDT and quality systems assessor qualifications
- ≻Cost effective
- Less intrusive (three yearly full system assessment with no annual surveillance)
- More likely to provide a beneficial harmonising effect
- ➢Possibly of interest to ASME NDE?
- Detailed in documents at <u>ICNDT.ORG</u>