

## EVENING TALK

# What's broken in the present systems for qualification and certification of NDT personnel (and in the accreditation of certification), and what are the fixes?

by Mr. John Thompson, Director, International Affairs, BINDT

Organized by  
Hong Kong Institute of Steel Construction

Date:	29 October 2010
Time:	6:30pm to 8:00pm
Venue:	PQ502, The Hong Kong Polytechnic University, Hunghom, Kowloon.

### What's broken?

ISO/IEC 17024:2003. Due to lack of consultation and feedback from stakeholders when ISO/IEC 17024 was drafted, International Accreditation Forum Guide 24 (IAF G24) had to be drafted, but the combination of 17024 and G24 is too general for NDT.

ISO 9712/EN 473 (3<sup>rd</sup> editions). Both of these standards had all criteria that were covered by ISO/IEC 17024:2003 + G24 stripped out in order to avoid conflicts and problems for CB and AB. This required the subsequent development of a CEN guide on the interpretation of ISO/IEC 17024:2003 for NDT Personnel CB.

Present (EFNDT) MLA on NDT personnel Q&C is predicated upon accreditation or, where not feasible, on EFNDT assessment (peer review in accordance with ISO/IEC 17040:2005) and approval.

Accreditation Body (AB) assessors lack relevant knowledge and experience, thus accreditation assessments are variable (often technically inadequate), and not fit for purpose in terms of supporting an MLA for mutual recognition by NDT Personnel CB.

Quality versus duration of experience. None of the relevant and applicable standards adequately addresses the *quality* of experience gained during the qualification phase of the certification process.

Quality Vs duration of training. The applicable standards make various references to syllabuses, and specify the minimum durations of training prior to certification, but none of them require that the training or the training provider be subject to any form of independent assessment or accreditation.

Scopes of qualification and certification under ISO 9712/EN 473 are often undefined or too broad.

Central certification in accordance with ISO 9712/EN 473 often results in CB over-qualifying and under-qualifying NDT personnel!

The qualification systems for novel or critical inspections (ENIQ and CEN Methodologies) are too cumbersome and expensive; A better system has been developed to suit the needs of industry, but has been opposed by those that favour the more rigid existing systems.

PED (97/23/EC) is too vague on its requirements for approval of NDT personnel for testing of permanent joints in PE.

Implementation of 2<sup>nd</sup> party systems for qualification and certification. SNT-TC-1A is simply a guide to 2<sup>nd</sup> party qualification and certification (approval), and is often abused by the employer implementing an

internal system. A competent third party assessment and accreditation system is required to ensure that 2<sup>nd</sup> party qualification and approvals systems are effective and free from abuse.

### **What are the fixes?**

This presentation will discuss the problems in detail, and will offer actual or potential solutions for the consideration of industry.

### **About Mr. John Thompson**

Since 2009-01-01: Appointed Director, International Affairs, BINDT

John Thompson is a UK registered Incorporated Engineer and holder of EN 473 / ISO 9712 (PCN) NDT Level 3 certification for Ultrasonic, Eddy Current and Magnetic Particle Testing methods.

1965 - 1988: Served in the Royal Air Force (RAF) carrying out maintenance and overhaul of military aircraft during the period.

1978 - 1985: Assigned to non-destructive testing duties in the RAF, applying all main NDT methods on aircraft, weapons, vehicles, lifting gear, civil engineering structures and aerospace materials, including carbon fibre reinforced composites.

1985 - 1987: Assigned to the RAF's Central Servicing Development Establishment (CSDE), responsible for development of NDT systems for inspection of the Harrier GR5 composite structure.

1987 - 2008: Director, Head of Certification Services Division, British Institute of NDT. During this period, John has:

- Developed and managed the UK's PCN Scheme for qualification and certification of NDT personnel
- Contributed to the development of standards at international (ISO), regional (CEN) and national (BSI) levels
- Involved in the management and administration of the European Federation for NDT (EFNDT) and the International Committee for NDT (ICNDT)
- Chairman of the NDT sub-committee of the European Conformity Assessment Bodies Forum (CABF), producing a code of practice for bodies approving NDT personnel to test pressure equipment
- Provided the secretariat for the International Forum for National Aerospace NDT Boards
- Acted as chairman, EFNDT and ICNDT WG1 on accreditation, qualification and certification
- For over 10 years been a (founder) member of the European Federation for NDT (EFNDT) Certification Executive Committee (CEC)
- Established Multiple Support Systems Ltd., a company limited by guarantee, to provide independent consultancy in the fields of qualification and certification of personnel and management systems.

The fee of the evening talk is \$50 for HKISC members and \$100 for non-HKISC members. Committee members of the Jointing Welding and Cold-Formed Steel Group are admission free.

For registration, please email the reply form to our Secretary Mr. Sam CHAN at [samchan@hkisc.org](mailto:samchan@hkisc.org)



## EVENING TALK

# What's broken in the present systems for qualification and certification of NDT personnel (and in the accreditation of certification), and what are the fixes?

## REGISTRATION FORM

(To be replied on or before 18 October 2010)

Please follow the 2-step registration procedure:

1. Fax the completed registration form to *Mr Sam CHAN* (Fax: 852-2334 6389) for preliminary registration.
2. Post the completed registration form within 7 days together with a crossed cheque payable to **Hong Kong Institute of Steel Construction Limited** to *Mr Sam CHAN*, at:

Room TU743, Department of Civil and Structural Engineering,  
The Hong Kong Polytechnic University, Hunghom, Kowloon, Hong Kong, China.

**on or before 18 October 2010**

To: **Mr Sam CHAN**

Fax: 852- 2334 6389

Personal Details:

Title	Name in full (Block Letter)	Name of Company	Tel.	Fax	E-mail address	Institution/ Membership No.
1.						
2.						
3.						
4.						
5.						

Postal Address  
(for official receipt):

I enclose a crossed cheque (no. \_\_\_\_\_) with a sum of HK\$ \_\_\_\_\_ for the registration fee of the captioned Technical Visit.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_