

**NDT Operator Certification Systems  
(Syrian Case)**

نظم منح شهادات للعاملين في الاختبارات اللاإتلافية  
(التجربة السورية)

**الاختبارات اللاإتلافية ودورها في تطوير الصناعة السورية  
- ورشة عمل -**

**كلية الهندسة الميكانيكية والكهربائية**

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# NDT Operator Certification Systems

## Important Definitions

- 1. Accreditation:** the process by which an agency or organization evaluate and recognizes a program of study or institution as meeting certain predetermined qualification or standards. Accreditation usually applies only to institutions and programs.
- 2. Certification:** the process by which recognition of competence to an individual who has met predetermined qualification is granted.
- 3. Competence:** A combination of skill, knowledge, and performance its attainment is evidenced by an individual's ability to apply the necessary knowledge and skill in daily practice.
- 4. Certificate:** document issued by the certification body under the provisions of the referenced standard, indicating that the named person has demonstrated the competences defined in the certificate.

# NDT Operator Certification Systems

## Motivating Factors

- إدراك العاملين في قطاع ما إلى ضرورة حيازة قناعة الزبون بأن العاملين في هذا القطاع محققين لمواصفات محددة.
- تطور إجراءات أو تكنولوجيا محددة إلى ممارسات جديدة.
- عندما تشير بعض المنظمات الحكومية إلى الحاجة لتنظيم العاملين في مهنة أو قطاع محدد.
- وجود مجموعة من العاملين في قطاع محدد ترغب في تمييز نفسها عن باقي العاملين بسبب حيازتها لمهارات إضافية.

# NDT Operator Certification Systems

## Major Type

1. Central Certification System.
2. Employer Based Certification System.

# **NDT Operator Certification Systems**

## **Central Certification Systems**

**1. ASNT Central Certification Program (ACCP).**

**2. ANSI/ASNT CP – 189 – 2001**

**American National Standard ASNT Standard for Qualification and Certification of Nondestructive Testing Personnel.**

# **NDT Operator Certification Systems**

## **Central Certification Systems**

- 3. EN 473 – Non – Destructive Testing – Qualification and Certification of NDT Personnel – General Principle.**
  
- 4. ISO 9712 – Non – Destructive Testing – Qualification and Certification of Personnel.**

# **NDT Operator Certification Systems**

## **Employer Based Certification System**

- 1. SNT-TC-1A: Recommended Practice No. SNT-TC-1A Personnel Qualification and certification in Non-Destructive Testing.**
- 2. EN 4179. Qualification and Approval of personnel for non-destructive testing – BSI Aerospace series. (Employer – based)**
- 3. NAS 410 National Aerospace Standard Certification and Qualification of Non – Destructive Testing Personnel – NAS 410. (Employer – based).**

# NDT Operator Certification Systems

## Basic Concepts

1. The Employer is responsible for issuing the authorization to work.
2. The Employer will usually base his authorization to work on the elements of education, training, experience and examination.
3. The Employer will usually include these elements within a Written Practice which is a part of the Company Quality System.
4. There are two basic systems of certification – Central and Employer based.
5. A number of standards/ recommended practices exists within which the Employer may need to work.



# NDT Operator Certification Systems

## Basic Concepts

- **The Written Practice.**

- a. **Scope.**

- b **Definition.**

- c. **Methods.**

- d. **Level of Qualification.**

- e . **Qualification requirements.**

**All NDT operators should be authorized to work within a Company Written Practice.**

# **NDT Operator Certification Systems**

## **Basic Concepts**

- The responsibility of the employer and the Level 3:**
- An Employer of NDT personnel must have a Written Practice which clearly define the Company' s position with respect to training, work, experience, exams, and certificate to operate signed by an appropriately designated person.**

# **NDT Operator Certification Systems**

## **Level of Qualifications**

- **NDT Level 3**
- **NDT Level 2**
- **NDT Level 1**
- **Trainee.**
- **NDT Instructor.**
- **For Central Certification system the levels are clearly defined and can not be changed.**
- **Employer based system allow the employer the flexibility of precisely determine specific operator roles within the written practice.**
- **As in all system where the employer is responsible for giving the NDT operator the authority to work, it is most important that the employer appreciates the responsibility and scope given to each level of NDT technician.**

# **NDT Operator Certification Systems Eligibility**

- 1. Vision requirements**
- 2. Education.**
- 3. Training.**
- 4. Experience.**