Visual Inspection (VT)

This method involves both direct and indirect visual inspection techniques. Direct inspection is where the material is inspected directly by the human eye with no additional visual aids, indirect inspection may involve the use of magnifying glass, mirror, borescope (mini camera), closed-circuit TV etc.

Visual inspection is a crucial NDT method which is too often overlooked. This should be the basis for inspectors starting out in the NDT industry. For example, a visual examination of an operational plant can often reveal obvious problem areas, such as leaks, excess vibration, corrosion or misalignment; this inspection is a very cost effective exercise and can be used to identify areas that require further NDT applications.

PCN Minimum Work Experience and Training Hour’s Requirements for VT Examinations

**LEVEL 1**
- 16 hours Training
- 1 month Work Experience

**LEVEL 2**
- 24 hours Training (additional to the 16 hours for Level 1)
- 3 months Work Experience (additional to the 1 month for Level 1)

If a candidate wishes to go direct to Level 2 without first taking the Level 1 route, the minimum requirements are the total accumulative requirements of both Level 1 and 2.

We can provide visual test training courses and examinations suitable for any of the following certification schemes:
- PCN / EN 473 / ISO 9712 Levels 1, 2, and 3
- SNT-TC-1A in accordance with your company written practice

We can also provide:
- Preparation training for ASNT Level 3

An example of the syllabus that is used for visual inspection training courses is shown below for Level 1 and 2. SGS can tailor make the syllabus to satisfy the requirements of an individual company specific written practice if requested.
# Visual Inspection (VT)

## Level 1

### General Theory
- Introduction to Visual Inspection
- Definitions
- Fundamentals
- Equipment
- Checks and Calibrations
- Test Procedures

### Specific Theory
- Application of the Method and use of Codes, Specifications and Procedures, applicable to the company, including the relevant control checks.

### Practical Examination
- Follow written instructions and process the inspection test pieces, record and report defects from know datum markers, carry out pre test calibration checks, post test procedures.

## Level 2

### General Theory
- Basics of Vision
- Lighting Techniques
- Material Attributes
- Environmental and Physiological Attributes
- Visual Perception
- Equipment
- Employer Applications
- Accept / Reject Criteria
- Recording and Reporting
- (in addition to the Level 1 Syllabus above)

### Specific Theory
- Application of the Method and the Specific requirements of the company, in particular making reference to those Codes, Specifications and Procedures used by the company, including the relevant control checks.
- Product technology of the products for the relevant sector, i.e. welds, castings, forgings, this includes, manufacturing processes, defect formation and detection.

### Practical Examination
- Production of written instruction, determine the best inspection techniques for the individual parts, process the inspection test pieces, record and report defects from know datum markers, carry out pre test calibration checks, post test procedures.

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