

STANDARD VISUAL EXAMINATION PROCEDURE NDT-11

1. SCOPE

- 1.1 This Standard Examination Procedure specifies the requirements for the performance of Visual Examination.
- 1.2 The basic purpose of Visual Examination is to detect major flaws which potentially could cause service failures at the design loading conditions.

2. PERSONNEL QUALIFICATION

- 2.1 All personnel performing examinations in accordance with this procedure shall be familiar with the applicable approved drawings, procedures, and specifications.

3. EXAMINATION GENERAL REQUIREMENTS

- 3.1 Visual examinations performed for acceptance shall be performed prior to other required nondestructive examinations.

MAGNETIC PARTICLE INSPECTION FIELD SERVICE NDT-21FS

1.0 SCOPE

- 1.1 This procedure defines the minimum requirements for visible dry powder and wet fluorescent magnetic particle examination (MT) of ferro-magnetic welds and/or materials.
- 1.2 This procedure defines the minimum requirements for the "Continuous Method" for MT examinations.
- 1.3 This procedure is to be used by all Thielsch Engineering, Inc. certified personnel or approved subcontractor personnel.
- 1.4 In general, this procedure is in conformance with the ASME Code, Section V, Article 7, 1992 Edition.

**STANDARD LIQUID PENETRANT EXAMINATION
PROCEDURE
FOR SOLVENT-REMOVABLE DYE PENETRANT
NDT-34, REVISION 2**

1.0 **SCOPE**

1.1 This procedure defines the minimum requirements for the performance and evaluation of liquid penetrant examination to detect surface discontinuities.

1.1.1 Time of Inspection

Acceptance inspection shall be performed on an item in the final surface condition and final heat treated condition.

**RADIOGRAPHY INSPECTION PROCEDURE
NDT-46**

1.0 **PURPOSE**

This Guideline establishes the requirements for the control of radiographic testing of materials and assemblies in determining the presence of internal discontinuities within the volume of the object under examination.

2.0 **SCOPE**

2.1 The requirements for this procedure shall apply to all radiographic inspections conducted by Thielsch Engineering, Inc.

2.2 The requirements contained herein meet or exceed those specified in the ASME Code Section V with all applicable Addendas, the American Welding Society - D1.1, ANSI B31.1 - Power Piping, API Standard 650 - Welded Steel Tanks for Oil Storage, API 1104 - Standard for Welding Pipelines & Related Facilities, and the American Water Works Association.

ULTRASONIC THICKNESS INSPECTION

NDT-50

SCOPE

- 1.1 This practice provides guidelines for measuring the thickness of materials (over .125 inch) using the contact pulse-echo method.
- 1.2 This practice is applicable to any material in which ultrasonic waves will propagate at a constant velocity throughout the part, and from which back reflections can be obtained and resolved.
- 1.3 The techniques described provide indirect measurement thickness of sections of materials not exceeding temperatures of 200°F. Measurements are made from one side of the object, without requiring access to the rear surface.