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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 26141.2-2010

**Non-destructive testing -- Qualification of radiographic film
digitization systems -- Part 2: Minimum requirements**

无损检测 射线照相底片数字化系统的质量鉴定 第2部分：最低要求

(English Translation)

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Table of Contents

- Foreword
- Introduction
- 1 Scope
- 2 Normative references
- 3 Terms and Definitions

Foreword

GB/T 26141 "NDT Qualification of radiographic film digitization systems" is divided into two parts.

--- Part 1. Definitions, quantitative measurements of image quality parameters, standard reference film and qualitative control;

--- Part 2. Minimum requirements.

This section GB/T 26141 Part 2.

This part identical with ISO 14096-2:2005 qualification "NDT radiographic film digitization systems - Part 2.

Minimum requirements "(in English).

This section is equivalent translation ISO 14096-2:2005.

For ease of use, this section made the following editorial changes.

--- "This International Standard" be replaced by "this section";

"," --- With a decimal point instead of a comma as the decimal point, "";

--- Remove the foreword and introduction of international standards;

--- With GB/T 1.1-2000 predetermined key words instead of the international standard introductory phrase.

This part of the National NDT Standardization Committee (SAC/TC56) and focal points.

This section is drafted. Shanghai IAC Detection Technology Co., Ltd., Jinan Shire Inspection Technologies Limited, Shanghai Research Institute of Materials, Shanghai Yasushi Detection Technology Co., Ltd., Shanghai - Friends Industrial Co., Ltd., Shanghai Wei Cheng Banda Detection Technology Co., Ltd., Shanghai Automation bamboo sun set Preparation Ltd., Shuo Germany (Beijing) Technology Co., Ltd., GE Inspection

Technologies Limited.

Introduction

Radiographic film systems for industrial X-ray and gamma radiographic testing. In order to take advantage of computer data analysis, storage and transmission Advanced storage areas, the information should be stored within the radiographs are converted into digital data (digital). GB/T 26141 of the present Part of the minimum requirements to ensure that the film digitization process, effectively save the information for the assessment of the digitized data.

NDT radiographic film digitization systems Qualification - Part 2. Minimum requirements

1 Scope

This section GB/T 26141 for the needs of non-destructive testing of the provisions of the three negatives digitized quality level of the selected level dependent to radiation energy, is the level of quality and the thickness of the original radiographs of the subject material. This section does not involve signal processing, display and digital Storage of data.

2 Normative references

The following documents contain provisions which, through reference GB/T 26141 in this section constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 3323 metal fusion welded joints radiography (GB/T 3323-2005, EN1435:1997, MOD)
GB/T 5677 Steel Castings radiographic testing (GB/T 5677-2007, ISO 4993. 1987, IDT)
GB/T 19943 Non-destructive testing of metallic materials X and gamma radiography detector basic rules (GB/T 19943-2005, ISO 5579:1998, IDT) GB/T 26141.1 lossless quality Identification of radiographic film digitization systems - Part 1. Definitions, image quality parameters Quantitative measurements, standard reference film and qualitative control (GB/T 26141.1-2010, ISO 14096-1:2005, IDT)

3 Terms and Definitions

The following terms and definitions apply to this part of the GB/T 26141 of.

Radiographic film digitization systems radiographicfilmdigitisationsystem Digitizer (scanner)
Followed by the completion of the following two functions.

a) by means of an optical detector for backsheet small area (pixel image unit) diffuse

transmittance detection, outputs an electrical signal (a few He digitization);

b) the said electrical signal into a digital value (optical density digital).

Pixel size on the scanned image, a row (horizontal) or a column (vertical) pixels from the geometric center to center adjacent.

The optical density Diffuse light intensity radiographic film scanning before I0 ratio of diffuse light intensity of the scanned ID with access to the base 10, according to the Formula (1) calculation.

$$D = \lg I_0 / I_D$$