Designation: ~~F629 – 15~~ F629 – 20

Standard Practice for Radiography of Cast Metallic Surgical Implants[1]

This standard is issued under the fixed designation F629; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope*

1.1 This practice covers the procedure for radiographic testing of cast metallic surgical implants and related weldments.

1.2 *Units*—The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values ~~given~~stated in ~~parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.~~each system are not necessarily exact equivalents; therefore, to ensure conformance with the standard, each system shall be used independently of the other, and values from the two systems shall not be combined.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate ~~safety~~ safety, health, and ~~health~~environmental practices and determine the applicability of regulatory limitations prior to use.*

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

E94 Guide for Radiographic Examination Using Industrial Radiographic Film

E192 Reference Radiographs of Investment Steel Castings for Aerospace Applications

E1025 Practice for Design, Manufacture, and Material Grouping Classification of Hole-Type Image Quality Indicators (IQI) Used for Radiography

~~E1030~~E1030/E1030M Practice for Radiographic Examination of Metallic Castings

E1320 Reference Radiographs for Titanium Castings

E1742/E1742M Practice for Radiographic Examination

E2660 Digital Reference Images for Investment Steel Castings for Aerospace Applications

E2669 Digital Reference Images for Titanium Castings

F2895 Practice for Digital Radiography of Cast Metallic Implants

2.2 *ASNT Standard:*[3]

SNT-TC-1A Recommended Practice for Personnel Qualification and Certification in Nondestructive Testing

2.3 *AIA/NAS Standard:*[4]

NAS410 Certification and Qualification of Nondestructive Test Personnel

2.4 *CEN Standard:*[5]

EN 4179 Aerospace ~~series~~Series – Qualification and ~~approval~~Approval of ~~personnel~~Personnel for ~~non-destructive testing~~Non-destructive Testing

3. Terminology

3.1 For definitions used in this practice, refer to the terms in ~~Test Method~~ Practice ~~E1030~~E1030/E1030M and Reference Radiographs E192.

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[1] This practice is under the jurisdiction of ASTM Committee F04 on Medical and Surgical Materials and Devices and is the direct responsibility of Subcommittee F04.12 on Metallurgical Materials.

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[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

[3] Available from American Society for Nondestructive Testing (ASNT), P.O. Box 28518, 1711 Arlingate Ln., Columbus, OH 43228-0518, http://www.asnt.org.

[4] Available from Aerospace Industries Association (AIA), 1000 Wilson Blvd., Suite 1700, Arlington, VA 22209, http://www.aia-aerospace.org.

[5] Available from European Committee for Standardization (CEN), Avenue Marnix 17, B-1000, Brussels, Belgium, http://www.cen.eu.

***A Summary of Changes section appears at the end of this standard**