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JJG

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

JJG 1027-2007

Replacing JJG 589-2001

**Verification Regulation of Medical Radiation Source for 60 Co
Teletherapy
(English Translation)**

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3 Terminology and units of measurement (1)

3.1

The term (1)

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Comprehensive disturbance Appendix C cylindrical ionization chamber correction factor pQ (14) Appendix D ionization chamber ion recombination correction (15) Appendix E side effect measuring time (17) Appendix F reference depth assessment of the effective measuring point of absorbed dose measurement Uncertainty (18) Appendix G Verification Certificate page format (20) Medical 60Co teletherapy radiation test procedures Referring to the International Atomic Energy absorber of the present procedure (IAEA) Technical Report No. 277, "photon and electron beams Determination. IAEA International Code of practice "OK medical 60Co teletherapy sources of radiation absorbed dose measurement.

1 Scope

The order applies to medical radiation 60Co teletherapy initial verification, subsequent verification and in-service inspection.

Medical 60Co teletherapy radiation dose rate range of useful beam about 0.01Gy/min ~ 10Gy/min.

2 Citations

The regulations cited in the following references.

IAEATRS.277. AbsorbedDoseDeterminationinPhotonandElectronBeams. An AdaptationoftheIAEAInternationalCodesofPractice, 2ndEdition (1997) IAEATRS.277. AbsorbedDoseDeterminationinPhotonandElectronBeams. An AdaptationoftheIAEAInternationalCodesofPractice, 2ndEdition (1998) GB Z/T 161-2004 "Medical gamma beam teletherapy protection and safety standards." GB 9706.17-1999idtIEC 60601-2-11.1997 "Medical electrical equipment Part. gamma beam Therapy equipment requirements for the safety " JJF1001-1998 "common measurement terms and definitions" GB/T 17857-1999 "Medical imaging academic language (radiotherapy, nuclear medicine and radiation dosimetry equipment)." GB 7465-1994 "high activity cobalt-60 sealed radioactive sources" when using this procedure, it should pay attention to the current valid version of the above-mentioned documents.

3 terminology and units of measurement

3.1 Terms

3.1.1 absorbed dose the average energy of ionizing radiation with matter granted. D is the absorbed dose by the d in dm firm, unless determined that $D = d \text{ in } /dm$ where. d in --- ionizing radiation granted the quality of the average energy of the substance dm ;

D --- absorbed dose, the unit. $J \cdot kg^{-1}$, which is named Gy, symbol Gy.

3.1.2 absorbed dose rate Absorbed dose per unit of time, divided by dt dD that is obtained by.

$= DD/dt$

Where. dD --- interval increment dt absorbed dose;

--- Absorbed dose rate, Gy/s or Gy/min.

3.1.3 source skin distance (SSD) radiation source to skin distance