A PRACTICAL METHOD TO DETERMINE THE HEATING AND COOLING CURVES OF X-RAY TUBE ASSEMBLIES

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A practical method to determine the heating and cooling curves of x-ray tube assemblies with rotating anode x-ray tube is proposed. Available procedures to obtain these curves as described in the literature are performed during operation of the equipment, and the precision of the method depends on the knowledge of the total energy applied in the system. In the present work we describe procedures which use a calorimetric system and do not require the operation of the x-ray equipment. The method was applied successfully to a x-ray tube assembly that was under test in our laboratory. © 2007 American Association of Physicists in Medicine. [DOI: 10.1118/1.2776672]

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