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Multi-purpose Phantom for Postal Audit Program

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Multi-purpose phantom (MPP) was developed for postal audit program in Korea. It was designed to check beam output, symmetry, flatness, beam quality, heterogeneity correction, and wedge factor. The phantom was tested for 18 machines/16 institutes in Korea and evaluated by EQUAL in 2005. The correction factor for the MPP was evaluated by using ion chamber and Monte Carlo method. In the test performed in Korea, reference value was selected from measured value by the tested institute itself. The measured value using TLD in MPP was compared with reference value applying correction factors. This method could be applied into the institutions who dose not use computerized planning system. During inter-comparison with EQUAL, the measured value was directly compared with the calculated value from computerized planning system.

Key words: quality audit, radiation therapy, TLD