

RCG Note #94-01
January 4, 1994

CEBAF

The Continuous Electron Beam Accelerator Facility

Dose Rates in Occupied Areas Behind Shielding Walls in the Hall A, B, and C Transfer Tunnels

Initial calculations provided in RCG Note #93-15 indicate the need for 39 inches of steel shielding to provide protection to personnel working in the Hall C transfer tunnel while beam is being run into the other experimental halls. Likewise, CEBAF desires to have the ability to allow personnel to work in either of the other two transfer tunnels while beam is in alternate experimental halls. While the Hall A shield wall is by similar geometry the same design as Hall C shield wall, calculations showed that the Hall B shield wall would need 13 inches of additional thickness due to its position relative to the axis of the beam line. This Note identifies the final calculated dose rates behind the shield walls and takes into account the final design of the walls, as identified by the plan drawings, and an improved model for gamma scattering.

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