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## Parameters of Shielding Calculation - Request Form<sup>(\*)</sup> -

(\*) We recommend that all these be discussed personally with us (contact name Catalin Frujinoiu) during a preliminary site visit.

1. **Manufacturer and Model:** \_\_\_\_\_ Manufacturer phone: \_\_\_\_\_
2. **Type of accelerator (e.g., isocentric linear accelerator):** \_\_\_\_\_
3. Reason for shielding request: new machine \_\_\_\_\_ or changed parameters (explain the change –e.g., current, energy, workload, shielding, etc. ) \_\_\_\_\_  
\_\_\_\_\_
4. Modes of operation: electron/photon \_\_\_\_\_ % time and electron \_\_\_\_\_ % time:
5. Materials in the accelerator head (e.g., W or Pb shielded machine): W \_\_\_\_\_ or Pb \_\_\_\_\_
6. **Maximum electron beam energy (MV):** \_\_\_\_\_ **(e.g., 18 MV)**
7. Type of converter (e.g., W) \_\_\_\_\_ and thickness (mm): \_\_\_\_\_
8. Isocentric radius of rotation (SAD) (default SAD=1 m) \_\_\_\_\_ (m)
9. Beam size at isocenter (default 40 x 40 cm) \_\_\_\_\_ cm x \_\_\_\_\_ cm
10. **Maximum anticipated workload at isocenter (W):** \_\_\_\_\_ (cGy/year) **OR max. dose rate at isocenter** \_\_\_\_\_ (cGy/min), # patients treated per day \_\_\_\_\_ (pat./days), **treatment time per patient** \_\_\_\_\_ (min/pat.), **treatment days per year** \_\_\_\_\_ (days/year).
11. **IMRT** \_\_\_\_\_ **YES** or \_\_\_\_\_ **NO**
12. **Percent of beam time the IMRT is used** \_\_\_\_\_ %
13. Leakage Factor, LF (default LF = 0.001) \_\_\_\_\_
14. Beam stopper installed: YES \_\_\_\_\_, or NO \_\_\_\_\_; If YES was selected, indicate the beam stopper thickness \_\_\_\_\_ (cm) and material \_\_\_\_\_ or the equivalent TVLs \_\_\_\_\_
15. **Max dose rate at isocenter:** \_\_\_\_\_ cGy/min
16. Existing maze outlines (both horizontal and vertical projections) containing: scaled dimensions, existing shielding thicknesses and composition, type of adjacent area (controlled or uncontrolled), degree of occupancy. Isodose plot if available.

**Note:** the maze outlines should be: fairly clear so that the distances can be inferred from the indicated scale and/or clearly indicated, the beam should be figured in the most probable configuration, the adjacent areas should be marked with C (controlled) or U (uncontrolled), the primary barriers should be marked with P and, if appropriate, the existing shielding materials should be listed on a separate sheet.