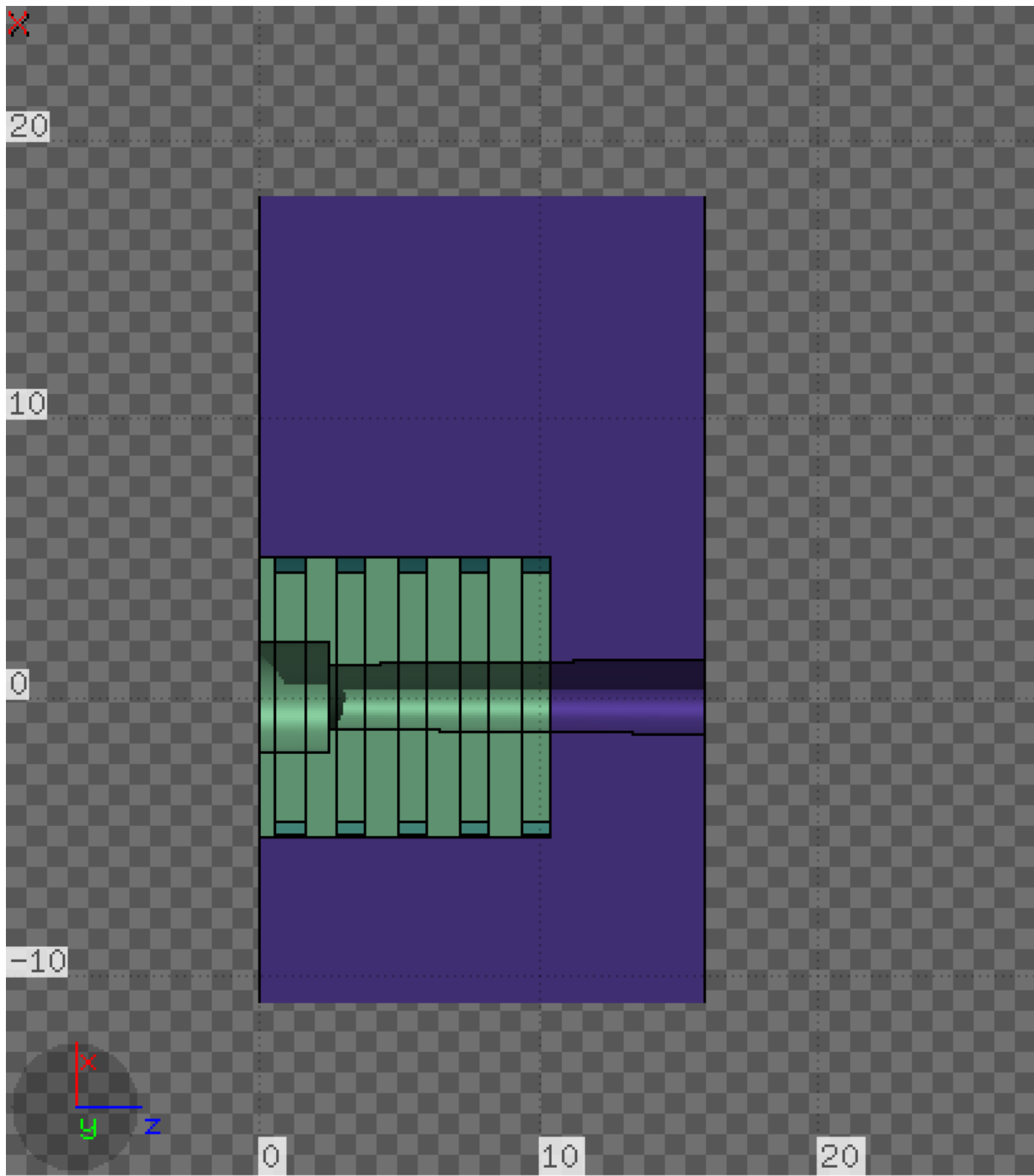
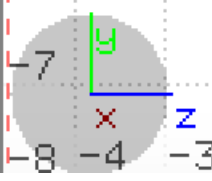
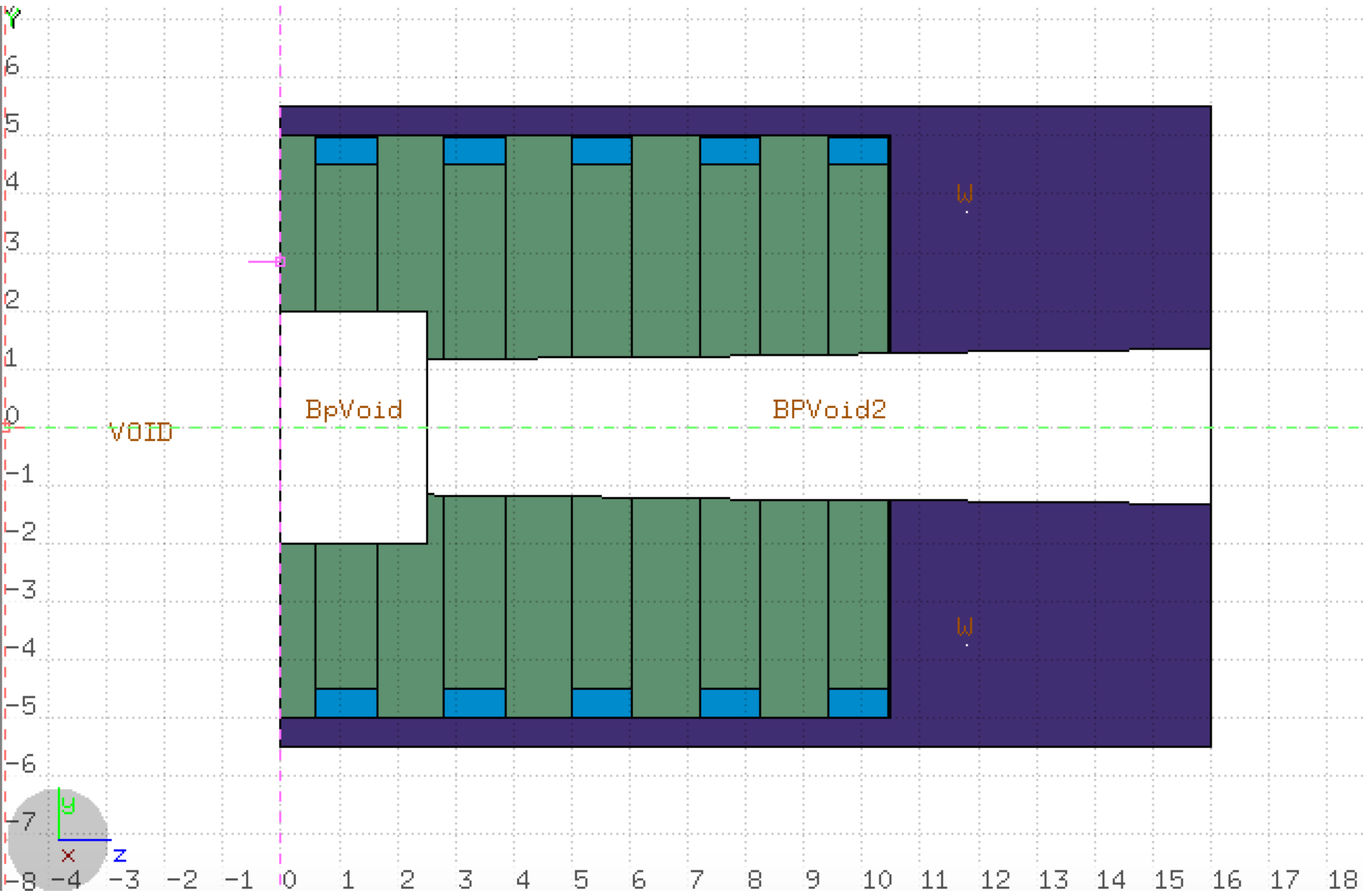
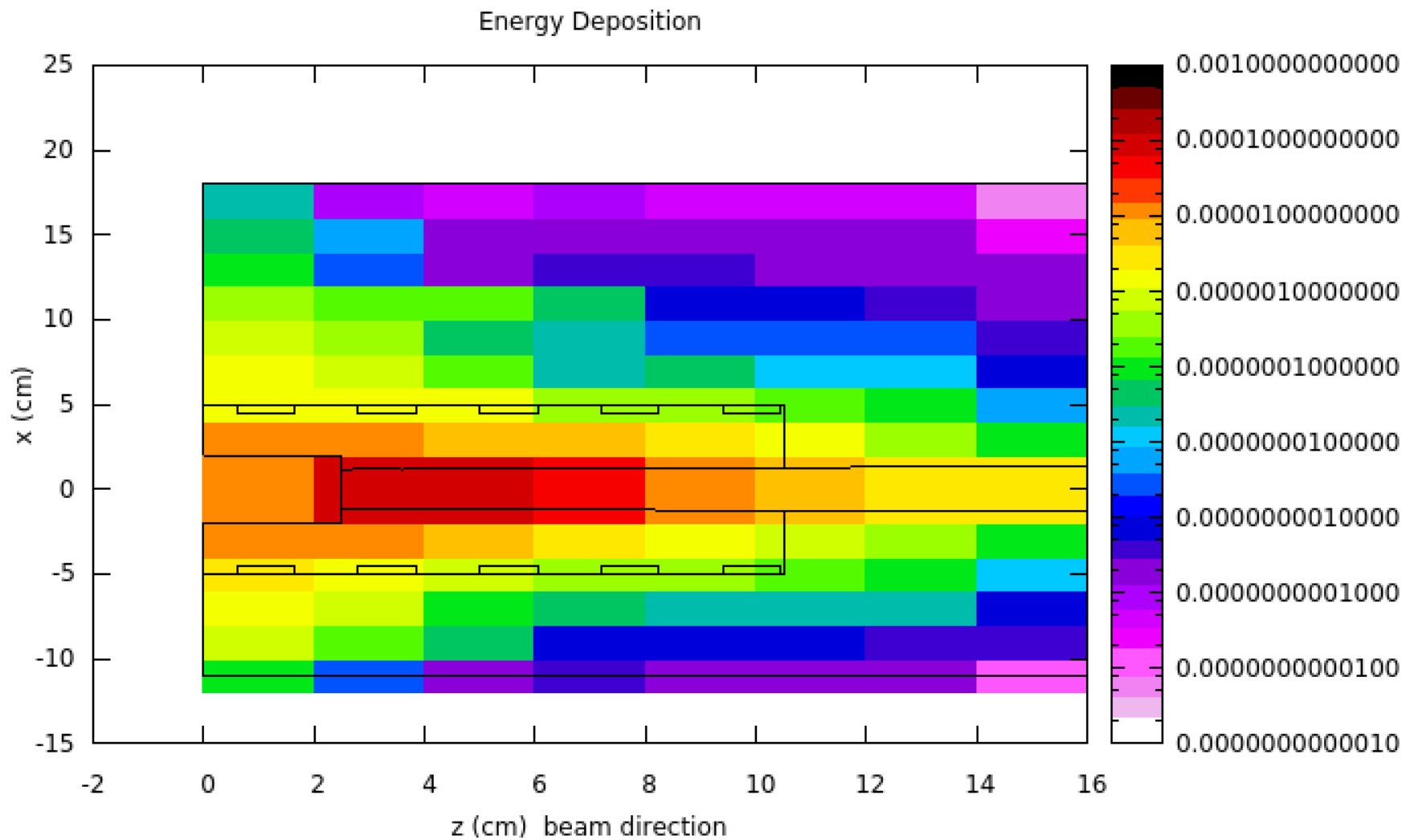


Collimator Activation in Fluka

- 1.068 GeV electron beam; runs for 25 total running days at 70uA (all physics processes turned 'on'); 4mmx4mm 'raster'
- 0.5mm thick lead target, 83cm upstream
- W(70%)Cu(30%) core with water cooling
- W(90%)Ni(6%)Cu(4%) outer collimator







- Energy Deposition: GeV/cm³/particle thrown
- Total Energy Deposited in Collimator: 2.91E-2 GeV/e-
 - 29.12 W/uA
 - 2038 W

Geant4

Fluka

2264 W

2038 W

- Energy Deposited in Collimator from
 - electrons : $1.281\text{E-}2$ GeV/part : 896.7 W
 - positrons : $7.901\text{E-}3$ GeV/prat : 553.1 W
 - gamma : $8.396\text{E-}3$ GeV/part : 587.7 W

- Next Steps
 - look at activation (mrem/hr) upstream and downstream of collimator
 - identify activation by particle species