Exercise: Activation

7th FLUKA Course

NEA Paris, Sept.29-Oct.3, 2008

Exercise – Activation

❑ copy the solution of Exercise 5 (**ex5.inp**) into a new directory (**ex10**), name it **ex10.inp** and open it using FLAIR

❑ add irradiation profile of three irradiation periods of 7 days each, separated by 4 days of shutdown

❑ adjust intensity during each period: 10^5 protons per second

❑ consider two cooling periods: one hour and one month

❑ add scoring of specific activity in Bq/cm^3 in the aluminum and lead cylinders of the target for both cooling times with USRBIN and with RESNUCLE

❑ add scoring of dose (Gev/g) and dose equivalent (pSv) using the coefficient EWT74 (AUXSCORE), in the aluminum and lead cylinders of the target with USRBIN (R-Φ-Z)
R:0..10cm in 100 bins, Φ 1 bin, Z:-5..15cm in 200 bins, X=0, Y=0cm

❑ kill electromagnetic cascade of the decay radiation