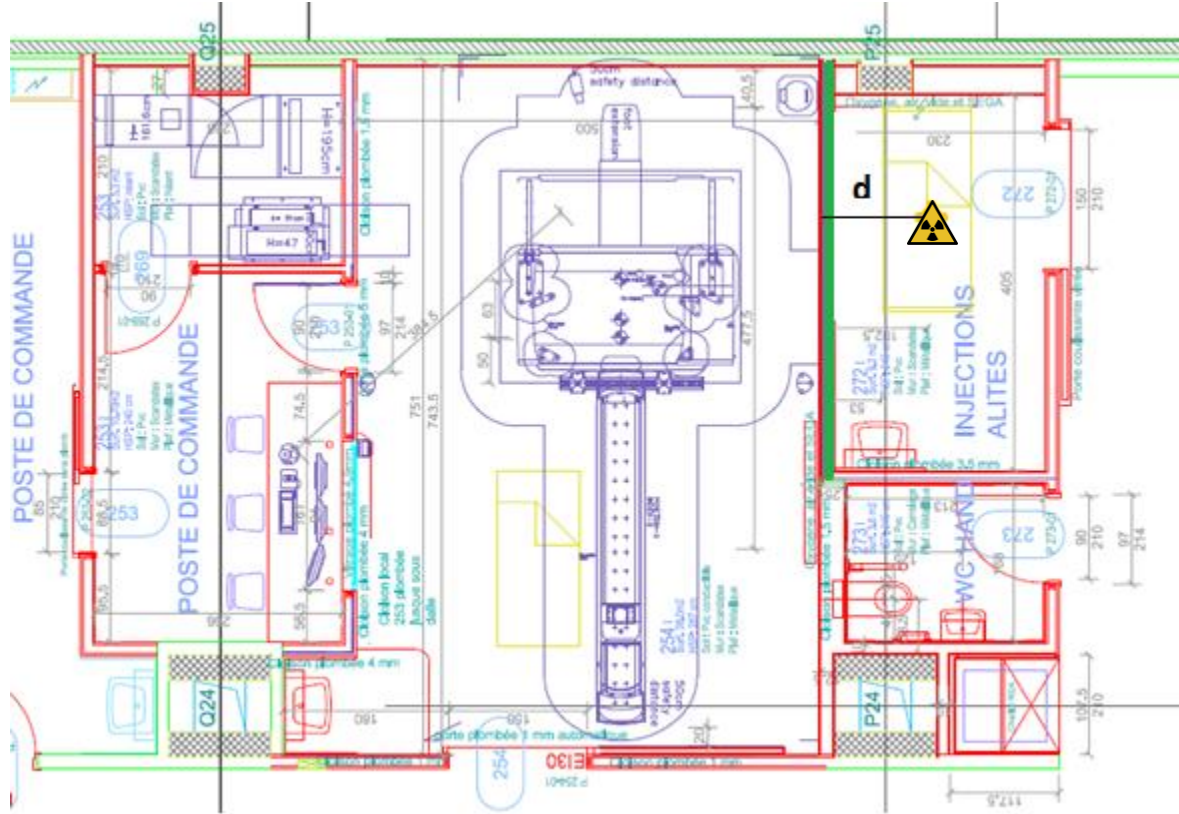


EPFL, 5th november 2018

Exercises

Shielding calculation around a PET-CT



Knowing that $d = 110$ cm and that the radioactive source (ie. the patient) is F-18, 350 MBq, estimate the mandatory lead equivalent shield between the patient waiting room («injection alités» with patient's bed) and the PET-CT room (green wall) to agree with regulation (ORaP).

NB: consider an occupation of 40 hours a week and a tenth value layer (TVL) of 1.59 cm for F-18 in lead.