Testing the sorting strategies in the CERN SPS, R. BARTOLINI, M. GIOVANNOZZI, W. SCANDALE, CERN; E. TODESCO, INFN-BOLOGNA - Simulations for checking the feasability of experiments on the CERN SPS to test the sorting strategies in operational conditions are presented. The eight strong extraction sextupoles used in diffusion experiments are powered with independent currents in order to simulate the effect of eight random sextupolar errors. A sorting strategy based on analytical quality factors is applied to select the best ordering for the short-term 4D motion. The validity of the obtained configuration is also checked for 6D longterm motion and for other working points, still showing a considerable gain.