MCNP Report Ocean Wong (Hoi Yeung Wong) MSc Physics and Technology of Nuclear Reactors 2019-03-09

1 Exercise 1 Simple Neutron Source in a Bucket of Water

- Include screencap of each cell's number and material
- show, in the 2nd graphic, that as we move up the bucket there is a void appearing.

2 Exercise 3: Criticality

2.1 Questions

- \bullet Examine and report upon the estimate of k_{eff} with cycle number given in the output.
- Are you confident in the final reported result and its uncertainty? Justify your answer.
 - make sure that the 10 statistical checks pass on all cells
- In addition to Monte Carlo stochastic uncertainties what other uncertainties may need to be considered in a criticality safety assessment?