

Comment on

“Nuclear Design Report for Bushehr NPP Unit 1 Cycle 5”

1. Page 21, Table 5.2, results presented in this table has contradiction to the corresponding data presented in PFMR. These contradictions shall be clarified.
2. As the FMR calculation are based on 60 axial layers, it is necessary to perform calculations in other documents such as PFMR, NDR and ALBUM based on 60 axial layers.
3. Page 25, Table 2.7 under title “Neutron-and-physical characteristics of fuel cycle 5”:
 - a) The values of efficiency of emergency protection are not correct because the most effective CR has been chosen incorrectly. The most effective CR shall be determined by method used in ALBUM Cycle 4 (table 5.5). So figures 5.5 to 5.8 are not correct and shall be modified.
 - b) The value of re-criticality temperature is not correct. This value shall be modified.
4. Figures 4.1 to 4.8 and Tables 4.2 and 4.3, what is the criterion for choosing critical boric acid concentration? Why this criterion is different in NDR Cycle 4 and NDR Cycle 5?
5. Table 5.5 under title “reactivity inserted in ejection from the extreme lower position of CPS CR from control groups”,
 - a) The Xe situation in the last row of table shall be changed to “-1”.
 - b) What is the basis of choosing ejected rod (N_{360})? The selected rod is different from used in NDR Cycle 4.
 - c) What is the basis of CPSAR position? The considered position for CPSAR is different from used in NDR Cycle 4.
6. Tables 5.9, what is the basis of choosing flow rate in considered scenarios? (The flow rate is different in NDR Cycle 4 and NDR Cycle 5).