OPERATING LIMITS AND CONDITIONS FOR IRRADIATIONS

Limiting the effect on a reactivity:

- Maximum allowed effect on a reactivity by an irradiated sample is limited to 0.25 $.
- Maximum allowed static reactivity by a single experiment is limited to 2.5 $.
- Maximum allowed dynamic reactivity by a single experiment is limited to 1.0 $.
- Maximum allowed static reactivity by all installed experiments is limited to 3.0 $.

Maximum allowed dose rate in case of sample irradiation

- Dose rate 1 m away from the bare sample should not exceed 10 mSv/h.

Limitations on a materials being irradiated

- Materials that are corrosive to the reactor components, react violently with water, are potentially explosive or are liquid fissile material have to be gas tight encapsulated.
- Every experiment containing fissile material (^{233}U, ^{235}U, ^{239}Pu and ^{241}Pu) has to be supervised. Maximum allowed quantity of fissile material is limited to 30 mg or it is proved that in case of failure, doses received by the operating staff do not exceed yearly limit set by national legislation.
- Explosive materials like gun powder, nitro-glycerine, TNT etc. are limited to the quantities of 25 mg. Irradiations can be carried out using special capsules that withstand detonation – that has to be demonstrated.
- Material quantities are limited. In case of release to the reactor hall, doses received by the operating staff do not exceed yearly limit set by national legislation.