

## Risk analysis for common shielding project PDR

P=Probability (1-5)

I=Impact (1-5)

## Performance:

Risk	P	I	Mitigation
Shielding is insufficient	4	1	Install additional shielding on outside, or create local unrestricted controlled areas
Shielding is incompatible with guide design	2	4	Effective communication with instrument teams

## Cost

Risk	P	I	Mitigation
Cost estimates are insufficient	2	3	Maximise standardisation Modular design which is well-adapted to serial production Ensure quick buy-in from instrument teams Effective competitive tendering
Shielding is insufficient	4	3	Neutronics calculations during detailed design phase, allowing some re-design if required
PSS turns out to be complex and expensive	2	3	Effective communication with PSS team

## Schedule

Risk	P	I	mitigation
Shielding may not be installed in time	1	4	Ensure quick buy-in from instruments Apply lessons learnt from bunker procurement

## Operability

Risk	P	I	mitigation
Shielding is insufficient	4	2	Neutronics calculations during detailed design phase, allowing some re-design if required
PSS is inconveniently slow and cumbersome	2	3	Effective communication with PSS team
Frequent access is needed to chopper pits	2	3	Allocate gantry cranes to particular chopper pits
Shielding is incompatible with guide design	2	3	Effective communication with instrument teams