

# Initial Work on Standards Optics and Shielding

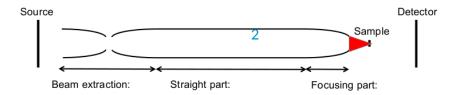
Phil Bentley Group Leader

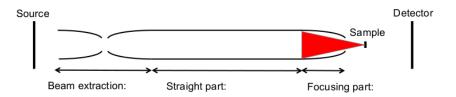
www.europeanspallationsource.se 13<sup>th</sup> November, 2013

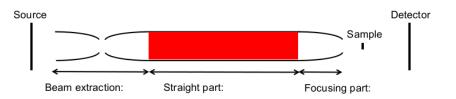
### Guides

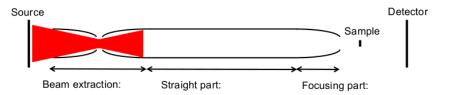


- We have a standard concept that provides a good cost to performance ratio
- Medium and long instruments will probably converge on the system to the right:









# Guides



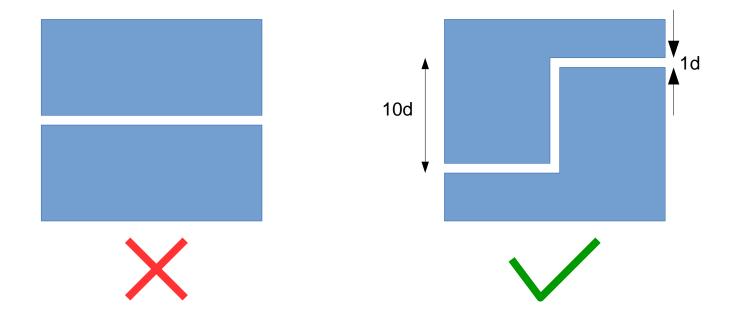
 Phase space filling of choppers near sample position

Intensity Neutrons in Divergence Chopper - Guide - Sample position Guide Intensity Neutrons in Divergence

## **Shielding Chicanes**



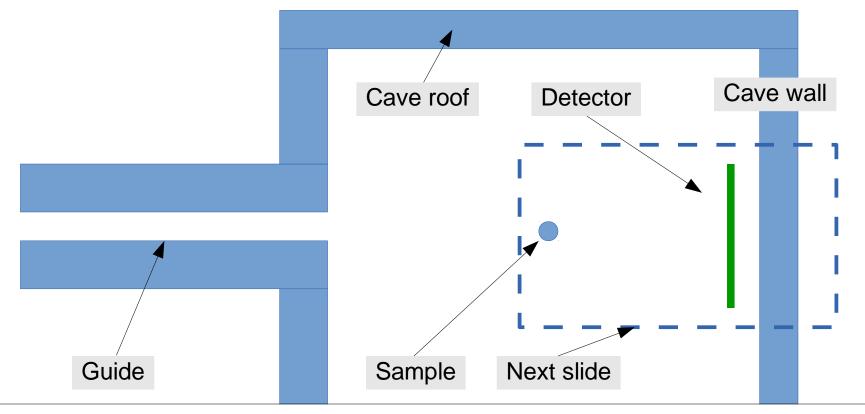
- General 7x "rule":
- Any gaps in shielding need steps that are 7x larger than the gaps
- We use 10x to provide margin of error



#### **Instrument Caves**



 Current thinking is that every instrument will have a cave enclosure, similar to TS2 at ISIS



### Instrument Caves



 Current thinking is that every instrument will have a cave enclosure, similar to TS2 at ISIS

208 Pb if scintillators used (Fe capture barrier)

