MAGiC Update

Instrument class meeting

29/09/2020

Solid state bender

- Mistake in simulation spotted before last ICEB
 - Sdown reflectivity wrong
 - Direct LoS with part of neutrons entering guide system
- Solution found
 - S-like shape
 - Small transmission loss
- Installation in March 22 OK



Choppers

- Design well advanced
- CDR scheduled for 26th of November
- Kick-off meeting for Carbon Fiber Disc done
 - Airbus
 - No difficulties
- Magnetic guide field integration done
- Installation in-Bunker:
 - 2 weeks foreseen including margins
 - Can be done in parallel with other activities
 - On time for March 22 access



Guide system

- Call for tender ended
- Only one offer received from SdH
 - Covering in-Bunker, Feedthrough and Guide Hall lot
 - Polarizer not covered
- Delivery way after proposed schedule
 - In-bunker delivery: December 22
 - Feedthrough delivery: July 22
 - Guide Hall delivery: March-October 23
- Cost is below expectations
- Negociation phase to be done to speed up in-Bunker delivery

Heavy Shutter

• Neutronics OK



Detailed design and manufacturing delayed to properly fit the guide elements



Experimental cave

- Neutronics OK
- Increased wall thickness to 70 cm to be on the safe side
 - Small radiation leak detected around beamstop
 - At 5MW in the worst case scenario
- Tendering ... complicated
 - Stuck at administrative level
 - Commercial department has no expertise in "concrete" structure
 - Refuse to take responsibility ... I can not take it for them ...
 - Awaiting order from above :/
- Installation will start 9 month after publication at the earliest (September 21 and counting ...)

Detectors

- sub-TG3 for PA side in November
- sub-TG3 for large side in January
- Documentation in progress (thank you Mikhail :p)





Analyzer

- Meeting on 12th of October to look at design
- Mechanical assembly difficulties
- Looking at alternate mechanical design
- Looking at alternate optical design
- Long production time (~3 years)
- Delivery between 23 and late 25
- TG5 process to be properly defined for next ICEB
- Werner is in charge of reporting to ICEB as ICC

Common project

- Electrical
 - We asked Stuart Birch to llok at a Level 2 scenario with some Level 3 elements
 - Cost estimate in progress
- Utilities
 - Meeting with Anton this afternoon
 - Define perimeter
 - Start cost estimate
- Standard solution = easy maintenance
- Less work on instrument team (E-plan, documentation, ...)

Timeline

- We are late
- Schedule to be updated ... again
- TG5 scheduled to early 24 at the moment
- Negotiation with guide supplier may speed up the process
- MAGiC to be opened to external users in end-24
- Still 1 year of hot commissioning.
- ESS timeline is not frozen either.