

RaDIATE BNL BLIP Irradiation Run Planning VC Meeting 12

04.12.17

Present

FRIB: Frederique Pellemoine

CERN: Elvis Fornasiere, Claudio Leopoldo Torregrosa, Antonio Perillo Marcone

BNL: Leonard Mausner, Nick Simos

KEK: Taku Ishida

FNAL: Patrick Hurh, Kavin Ammigan, Bob Zwaska

RAL: Chris Densham

Notes

- Capsule update
 - ESS Al and FNAL C capsules re-work was successful at EB Industries last week.
 - All capsules are ready.
 - Capsule holders and basket are also ready
 - Small issue with the DS Ti capsule which is sitting slightly loose in the capsule holder. Nick investigating ways to ensure a tighter fit to avoid any risks of the capsule falling out during extraction.
- BLIP experiment schedule
 - New irradiation start date is **Wednesday, April 26th** (2 weeks from now), pending BLIP safety review committee approval.
 - This gives us a total of 9 weeks until the end of the BLIP normal run (scheduled to end on June 30th). One buffer week for any BLIP beam downtime.
- Safety committee pending issues
 - Nick is currently updating his FLUKA analyses and the safety document for initial 6-week run with DS Ti capsule, followed by last 2-week run with high-Z capsule.
 - Initial results indicate high dose outside of BLIP hot cell during capsule exchange. Nick is reviewing his calculations and investigating ways to lower dose to operator during exchange (extra temporary shielding?).
 - Lead glass viewport provides less attenuation than inner/outer steel and lead walls of the hot cell.
 - Dose rate calculation of high-Z capsule in the ORNL container to determine if extra bore shielding will be necessary, is also ongoing.
 - Capsule loading dry-run
 - BNL found container bore to be much more contaminated than what was reported by ORNL. The container is currently being decontaminated.
 - Complete dry-run is expected to be completed some time in May, but Nick informed us that Mike Clancy (waste management) will write a letter to BLIP safety committee to clarify/confirm that the capsule loading procedure is feasible.

- Nick will contact D. Senor to determine any specific PNNL handling requirement for receiving and extracting capsule from container upon receipt.
- Once irradiation is underway, a meeting will be set up to work out the funding mechanisms from participating institutions to cover handling/shipping activities at BNL.