

## PMT WG Pre-Meeting

### Charge:

1. Make a recommendation to the Technical Board on the feasibility and desirability of using Low Activity (LA) glass for the PMTs. This must be settled by the end of the Hawaii meeting if the schedule is not to slip. Two possible outcomes: A. Go ahead with LA option with the assumption that the testing plan is sufficient (keeping in mind that if the testing fails we would have to use SA), B. Go ahead with SA glass and do not do the testing plan.
- 2 Improve the plans for the PMT testing, cleaning, and installation such that they are ready for a Technical Design Review.

### Discussions of LA glass will include:

1. Review of the simulations on the number of PMTs needed for a fixed dwell time. E.g. a longer dwell time means a risk of source going offline. If we fix dwell at 9 months. 20% coverage LA need 280 days and 3542 inner PMTs, and 1.5 m buffer. Best 360 25% coverage SA and 5042 and 2.0m buffer.
2. Discussion of the proposed LA PMT testing plan with regards to whether it sufficiently mitigates risk if we used LA PMTs. The risk of implosion should be negligible - SA is already OK. LA needs moderately extensive testing.
3. Review of costs associated with LA and Standard Activity (SA) glass for PMTs. Note the total costs will need to be considered more broadly.
  - a. PMT cost (Bob)
  - b. DAQ (Doug)
  - c. Bucket housing (Lexi)
  - d. Installation costs (Rob)
  - e. HV (Chris G.)
  - f. Cost of acrylic covers (in case we use them) (Lexi)
4. Effect of acrylic covers on light collection (Marc and Teal)
5. Construction schedule and operations start time (Rob and Bob)
6. Future proofing (Matthew and Chris G.)

### Discussions of the Test Stand will include:

1. Walk through testing steps and needs (manpower/equipment) for each step:
  - a. Arrival
  - b. electric testing
  - c. cleaning
  - d. mounting
  - e. transport underground
2. Review tests at Boulby in 2018
  - a. Any inputs missing
  - b. Analysis status
  - c. Test requirements in the new year

## Tentative Agenda

*Hawai'i Imin International Conference Center-Second-202 - Pago Pago Room, East-West Center*

- 8:00-8:45 Results from 2018 testing – Gary (with other remotely)
- 8:45-9:30 Review of PMT LA vrs SA sensitivity and requirements – Marc (need to ask)
- 9:30-9:50 Coffee Break
- 9:50-10:20 PMT cost and schedule, LA vrs SA – Bob (help from Rob)
- 10:20-11:00 PMT mechanical testing program – ask Milind
- 11:00-12:00 Lunch
- 12:00-13:00 Acrylic covers – do we need them? What are the effects? - Teal
- 13:00-14:00 Other costs: DAQ/HV/Mounting/Assembly - Bob
- 14:00-14:20 Coffee Break
- 14:20-16:00 Walk through testing and installation steps (with updated info) Tony will coordinate room, Bob will lead discussion. Need to produce preliminary plan for CDR