PD in Iceberg - 06/17/19

Status of Iceberg and PD in Iceberg

* Noise issues in both PD and CE (Rory’s talk)
* SSP has problems (Aleena’s report)
* DAPHNE readout plans (Rory)
* Iceberg’s cryogenics:

Control valve will not be available for run 2

Internal filter not in yet.

Purity monitor will be in but concerns have been raised about its contribution to noise (when not flashing).

Future (run 3rd and beyond, entering FY 2020)

From Marco Vezocchi:

a) *the DUNE project has funds (and should be charged) for a certain number of*

*cycles of filling/emptying the cryostat (we planned $5k per cycle). This is for the*

*purchase of the LAr which is the largest consumable. The number of cycles is*

*driven by the number of tests that are planned. Given that some tests originally*

*planned for FY19 will take place in FY20,* ***we have funds for 4-5 cycles.***

*b)* ***there are no funds in the DUNE project for cycles dedicated to the testing of***

***photon detector****. So for example, let's say that the photon detector wants to*

*change something (the electronics for example) and make a test in January 2020*

*when there are no changes to the Cold Electronics,* ***we do not have the money***

***to cover the corresponding purchase of LAr****. Similarly,* ***if somebody wants to***

***put a completely different object inside ICEBERG, we do not have funds for that****.*

*c) please think about anything that is outside the cryostat that could help with*

*operation.* ***Additional power supplies*** *or instrumentation (that we have to borrow*

*from somewhere else at the lab). As mentioned above, I am assuming that all*

*major commissioning work for ICEBERG will be completed. I am planning on*

*adding a request for generic maintenance funds (but if you can be more explicit*

*like saying "we will need a new filter in June 2020 and it will cost $4.7k" that will*

*be very helpful.*

*d) please provide some priority....*

*e) this is not a way to try to get funding for things unrelated to ICEBERG. I will*

*apply a filter.*

*f) if an extra urgent expense shows up sometimes in FY2020 we can still ask the*

*DUNE project to provide funding, it may require 1-2 months to get it approved*

* Xenon doping in ICEBERG:

Arguments can be presented in favor of a dedicated run(s) of Xe doping in Iceberg after the planned November run of Xe doping in ProtoDune. Given the above constraints can it be done?

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Run 2: Iceberg cold by July 12th run for 2 weeks, end run 2 by July 29th.

Run 3 4 weeks later with SBND CE: starts September 1st (FY 20).