



Wrap-Up Comments

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4 February 2020

Thanks for your engagement



 Merci vielmal

Today's Action Items

22032	Evaluate the coldbox door and seal with respect to Faraday cage requirements. Confirm the door is conductively connected on the cold box. Bolts should be spaced a maximum of 1 meter apart.	Bagby, Mladenov
22033	Verify where the costs are located for the gas analyzers	Stewart
22034	take a conduit, put the TPC electronics cables inside, put it in a cryostat, fill it with liquid argon, and see whether there is any air left in there	Marchionni, Resnati, Verzocchi
22035	The beams connecting the 5 lines of DSS beams could interfere with the cable trays of the TPC electronics and with the cryostat penetrations (of the TPC electronics, of the calibration system). The position of these beams is not fixed and needs to be determined taking into account all the constraints from other systems	Mladenov
22036	Is the rack space for the APA temp sensors included in the current racks on the detector mezzanine?	Gollapinni, Shaw
22037	Side ports on feed thrus for signals?	
22038	Evaluate the use of manholes for instrumentation	

 Haend er no oeppis?

concerns and take-aways

- Mechanical integration :
 - Method not yet working everywhere, some new groups will need to be trained on the usage of models and navis-work
 - We should expand our activities on models integration and configuration control to
 - Installation scenario: including storage in the cavern, clean room and activities in the cryostat
 - Same job on protoDUNE-II SP
 - Same job on ND, when more information is mature
 - We need a clear strategy for production drawings signature and release
 - We need to have a clear picture of the detector integration at LAr temperature (cold vs warm configuration), from DSS to APA, HV, CPA

concerns and take-aways

- Electrical integration :
 - We need a complete overview on the electrical power distribution and its layout
 - UPS needs to be introduced in the power picture, trying also to mix the effort across LBNF and DUNE
 - A plan for power emergency turn off
 - Resolve the needs of the DAQ on the surface room (is 50KW enough?)

concerns and take-aways

- Compliance office mechanics :
 - Start working and being integrated within the engineering effort
 - Not clear if we have a problem with the lowering of material (APA, cryostat beams,...) in the Ross shaft. Urgent action needed. It might be just a problem of communication
- Compliance office electrical :
 - Just starting, need a strong effort on codes compatibility
 - Need to identify possible need for derogation, in particular for tools and non US material
 - Need to introduce, at least for tools, EU power (230V and 400V, 50 vs 60 Hz)



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concerns and take-aways

- BSI :
 - Need to understand better the situation at AUP, also in term of temporary infrastructure
 - Need to develop a clear plan and a clear division of responsibilities between I&I and CF, including financial responsibility (urgent for coming reviews)
 - We understand that some information will become available at the CD2 time

 Was koschtet das?

concerns and take-aways

- Cryogenics :
 - N2 fully underground will need a final decision by end of February
 - Cooling budget at least for the first 2 detectors should be ok, might be ok for 3. For the number 4 we should defer the method and needs, after 1 and 2 are understood

concerns and take-aways

- **INSTALLATION :**
 - Make sure clean room space is large enough
 - Work out the electrical services in the clean room
 - Various steps in the installation plan/sequence between HV, DSS, APA need to be better understood
 - DAQ rooms on the mezzanine now to be worked out in detail (power, racks, cooling,)
 - Good progress on the manpower understanding
 - Ash River, ProtoDUNE-II and BNL mockup fundamental

concerns and take-aways

- CALIBRATION :
 - Need to understand better the requirements and layout of the various subsystems and how to implement it
 - We need to wait for the May WS to better understand the list of actions and the final scenario

concerns and take-aways

- SURFACE :
 - Office space for the various activities need to be addressed
 - DAQ surface room need to be better integrated in the overall plans
 - Special working rooms for CE and PD need to be defined
 - Surface storage area, Ross surface 1 day storage and Cavern storage need to be integrated together
 - Clarify timing of Warehouse availability
 - Clarify the plans for network to FNAL and its reliability

concerns and take-aways

- software :
 - Clarify the way to decide for a common Slow Control architecture
 - Urgent setup of a ID database and method marking each component (also in the cold)
 - Overall DB plans urgently needed (PBS, Racks, Cables, ...)
 - P6 usage and availability to be better understood
 - Management of schedule during production and installation to be defined (outside P6?)

Gueti Reis!



Mis Luftchüssiboot isch volle Aal

