

Status & Plans

Eric James

Far Detector Technical Board Meeting

November 8, 2018

TDR

- Production of TDR volumes on the needed time scale remains highest collaboration priority
- Working towards updated schedule where final versions of TDR volumes are not due until July 2019
- To allow for late due date, we have agreed to submit drafts of chapter volumes for preliminary LBNC review on a rolling basis (see next slide)

TDR Draft Schedule

December: SP high voltage, SP APAs, SP DAQ

January: SP photon detection system, SP CISC,
Technical Coordination

February: SP electronics, DP electronics

March: DP high voltage, SP installation/integration

April: DP photon detection system, **SP Calibration**

May: DP DAQ, DP installation/integration, DP CISC

June: DP CRPs, **DP Calibration**

July: Final version of complete TDR to LBNC

(note: month indicated implies end-of-month delivery)

Near-term Schedule

Consortium	1st draft	2nd draft	LBNC
SP-HV	November 2, 2018	December 7, 2018	December 21, 2018
SP-APA	November 2, 2018	December 7, 2018	December 21, 2018
SP-DAQ	November 2, 2018	December 7, 2018	December 21, 2018
SP-PDS	November 30, 2018	January 11, 2019	January 25, 2019
SP-CISC	November 30, 2018	January 11, 2019	January 25, 2019
TC	November 30, 2018	January 11, 2019	January 25, 2019
PHYSICS	November 30, 2018	January 11, 2019	January 25, 2019

QA/QC and ES&H

- We are in the process of hiring a specialist to assist the consortia with putting together their QA/QC and ES&H plans (input to TDR chapters)
- More discussion about this at our next Technical Board Meeting (November 29th)
- Consortia should nominate a QA/QC and ES&H point of contact to interact with the TC team

Reviews

- Steve has already talked about reviews
 - 60% design reviews covering each detector sub-system in advance of final submission deadline for TDR volumes
- The majority of these reviews will likely occur after the corresponding chapter drafts have been submitted to the LBNC
 - Still allows for incorporation of review feedback (as well as LBNC feedback) into final versions of TDR volumes

Schedule

- The final versions of the TDR volumes will incorporate updated schedule information that accounts for the current state of the excavation schedule for the underground areas
- For the moment, the excavation schedule remains a work-in-progress, and we do not want to “jump the gun” on advertising new dates until we are confident that we have the correct ones in hand

ProtoDUNE – Phase II

- DUNE has submitted an initial expression of interest to the CERN SPSC for operating upgraded versions of the ProtoDUNE detectors in 2021 (DUNE-doc-11206)
- We should continue to think about how this affects consortia planning and incorporate appropriate activities into our schedule

Costs

- NCG has reviewed the initial cost estimates that we delivered to them
- Primary feedback is that they would like to see more standardization in the formatting and level of supporting documentation
- This will be another topic for our next meeting on November 29th

Schedule/Cost Work Days

- Between now and the end of the year, I would like to schedule days where Ami and I can meet with consortia leadership team members on an individual basis to work on further developing our construction schedule and cost estimates
- For consortia centered in Europe, Ami and I plan to be at CERN during the week of Dec. 3 and are leaving open the days of Dec. 5-6 to hopefully have some of these interactions

Upcoming Schedule

- SP Photon Detection 30% Design Review: November 12-13 @ FNAL
- DAQ 30% Design Review: December 3-4 @ CERN
- LBNC Meeting: December 7-9 @ CERN
- DUNE Collaboration Meeting: January 28 – February 1 @ CERN

LBNC Meeting in December

- Primary Focuses will be on DP (CRP, Elec, PD, and HV) and production of TDRs
- We are iterating on a final agenda, which we should be able to distribute soon
- In general, it's always good to have as much participation from the consortia leadership teams at these meetings as possible
 - For this particular meeting, it's most important that the leaders of the four consortia listed above are able participate directly

Detector Specifications

- Attempting to sign-off on how we will deal with detector specifications in the TDR
- Plan is for Executive Board to sign-off and take ownership of our most important detector specifications one week from today (next EB meeting scheduled for November 15th)
- The table that the EB will be asked to sign-off on is attached here
 - We will attempt to incorporate any feedback received by early next week

Moving Forward

- We do not expect to freeze our detector specifications for all time moving forward
- However, any future changes will need to go through an official EB approval process
- Lower-level specifications associated with each detector sub-system are expected to be further developed and maintained by the consortia as part of the upcoming design review process (and are expected to be incorporated within TDR)
- Still need to create DP specifications table