

Status & Plans

Eric James
FD Technical Board Meeting
April 9, 2020

Activity Updates

- Xenon-doping of ProtoDUNE-SP has resumed and detector is being monitored remotely via minimal DAQ configuration
- Some limited, ProtoDUNE-DP CRP testing that can be performed done remotely is being resumed this week
- Prototyping work has continued at Ash River taking advantage of the minimal operations team in place
 - EW Field Cage modules were assembled last week

Targeted Events

- RRB Meeting on April 2
- LBNF/DUNE Director's Review during week of May 18th
- DOE IPR on July 14-17

RRB Meeting

- Remote RRB meeting took place on April 2 (last week)
- The meeting was well-attended by the funding agency representatives
- Current plan for baselining the US project was presented and discussed
- Next meeting is planned for October 8-9
 - This would be the final meeting prior to US project baselining, and we will be targeting initial approval of the DUNE MOU
 - NCG reviews will need to be completed in advance of this

LBNF/DUNE Director's Review

- Project (P6) schedule has been re-opened to incorporate changes reflecting the current plan for baselining
- As part of this process, Gina and I are working with the DAQ and CALCI consortia to incorporate initial schedules for their systems
- This schedule will be re-frozen for the upcoming review on the time scale of late next week
- Materials for the review will need to be posted by ~ May 4

DOE IPR

- Project (P6) schedule for this review will be frozen at the end of May (~7 weeks)
- All materials need to be posted by June 30 (~11 weeks)
- Targeting full set of resource-loaded international detector activities in P6 schedule by end of May
- Targeting complete sets (all four types) of signed interface documents in EDMS
- Targeting completion of HV system, Photon Detector, APA Shipping Box, and DSS reviews on this time scale
- Targeting completion of CALCI and Background Mitigation workshops

Interface Documents

- Currently targeting four sets of interface documents:
 - Consortia-to-consortia (Kyle & Terri)
 - Consortia-to-installation (Jim)
 - Consortia-to-DSS (Jack)
 - Consortia-to-facilities (TBD)
- Deadline for initial posted drafts of those in red is end of next week (April 17)

Interface Documents

- Additional goals for July IPR:
 - Finalization of consortia-to-DSS and consortia-to-facilities documents
 - Appropriate sign-offs for all EDMS interface documents

Schedule

- With the re-opening of the P6 schedule for the upcoming Director's Review, Gina and I are back to working on incorporating full, high-level sets of non-DOE activities for each system
- Goal is to then resource-load these activities from consortia cost spreadsheets so that we can obtain annual labor and M&S profiles requested by NCG
- Targeting providing these materials to the NCG by early May so that they can provide initial review feedback on the time scale of the July IPR

Technical Reviews

- Final Preliminary Cold Electronics has been ongoing (remotely) over the past several weeks – expecting closeout next week
- Working with Review Office to schedule additional reviews needed prior to July IPR (see next slide)

Proposed Review Schedule

System	Structural Analysis Note Ready	Note Review Complete	Review Target
HV System	Notes posted on April 3	Early May	Mid-May
APA Frame & Shipping Box	Targeting April 24	Late May	Early June
Photon Detection	TBD	TBD	Late June
DSS	Late May	Early July	Mid-July

Requirements

- Steve has been working with consortia to define what is needed in terms of requirements for upcoming reviews
 - High-level requirements (28 for SP Far Detector) held by the DUNE Executive Board
 - Lower-level consortia requirements held by DUNE Technical Board (APA-6, HV-2, CE-8, PDS-16, DAQ-8, CALCI-17, and Installation-6)
 - Consortia-held interface, installation, production, and shipping requirements (based on controlled interface documents and consortia QA/QC plans)

Requirements

- First two categories (as defined in TDR) are now captured in EDMS ([EDMS-0000195183](#)) and DOORS (LBNF/DUNE Project Tool)
 - Consortia should bring proposed changes to Technical Board
- Last category should be captured in spreadsheets for upcoming design reviews (goal is to distill information contained within interface documents and QA/QC plan to guide review team)
- More in Steve's presentation

QA/QC Plan

- Kevin and Jim are in the final stages of producing a template (based on the already completed APA Preliminary Design Review) for what a consortium QA/QC document should look like at the time of a Preliminary Design Review
- There will be a presentation on this at the next Technical Board Meeting

CALCI Scope Workshop

- Workshop is meant to play an important role in clarifying the baseline scope of far detector calibration and cryogenic instrumentation systems (needed for July IPR)
- Workshop will be held remotely over a three week period beginning May 11th
- Charge has been posted to DUNE DocDB 17985
- In final stages of forming review committee

Background Mitigation Workshop

- We also need to have a follow-up workshop on background mitigation strategies for the underground caverns
 - There is a specific previous review recommendation on this topic that we need to respond to at the July IPR
- Working to see if we might be able to squeeze this in before July IPR – would most likely have to be held at the last minute (in early July)