Primary Beamline
Low Conductivity Water (LCW)
Preliminary Design Review

Summary

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LCW System - Preliminary Design Review
Review Summary

Summary of Preliminary Design Status

- Confidence in known design
- Areas where additional design focus is necessary
- Suggested areas of effort, schedule revision
- M&S review to be covered by project estimator

LCW System - Preliminary Design Review

Confidence in known design

- Well-established beamline lattice and Conventional Facilities design
- LCW design, installation methods using reliable, operational systems as model (MI, NuMI LCW)

LCW System - Preliminary Design Review

Areas where additional design focus is necessary

- Current layout incorporates major rework of service building and access from earlier this year (c. May 2019)
- Bus layout through Service Building no longer easy candidate for installation via MI-style aluminum troughs, will require new design
- Bus-to-magnet connections will require individual design at most locations
- Neither are show-stoppers, but can be effort-intensive for design

LCW System - Preliminary Design Review

Suggested areas of effort estimation, schedule revision

- Preliminary design overshot engineering estimates
  - Especially where component maturity was low
- Does estimated final design effort reflect a reasonable level of both engineering and drafting effort?
- Do the scheduled durations for tasks seem reasonable?
- Does the schedule logic and time scale make sense in relation to overall project goals?

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M&S review to be covered by project estimator

- This will be an in-depth review of all M&S costs
- To be completed by CD2

LCW System - Preliminary Design Review
Scope of Review

Review Emphasis:

The primary purpose of this review is technical in nature, to ensure the project is sufficiently mature to begin Final Design

Have we achieved this goal?

Thank you!