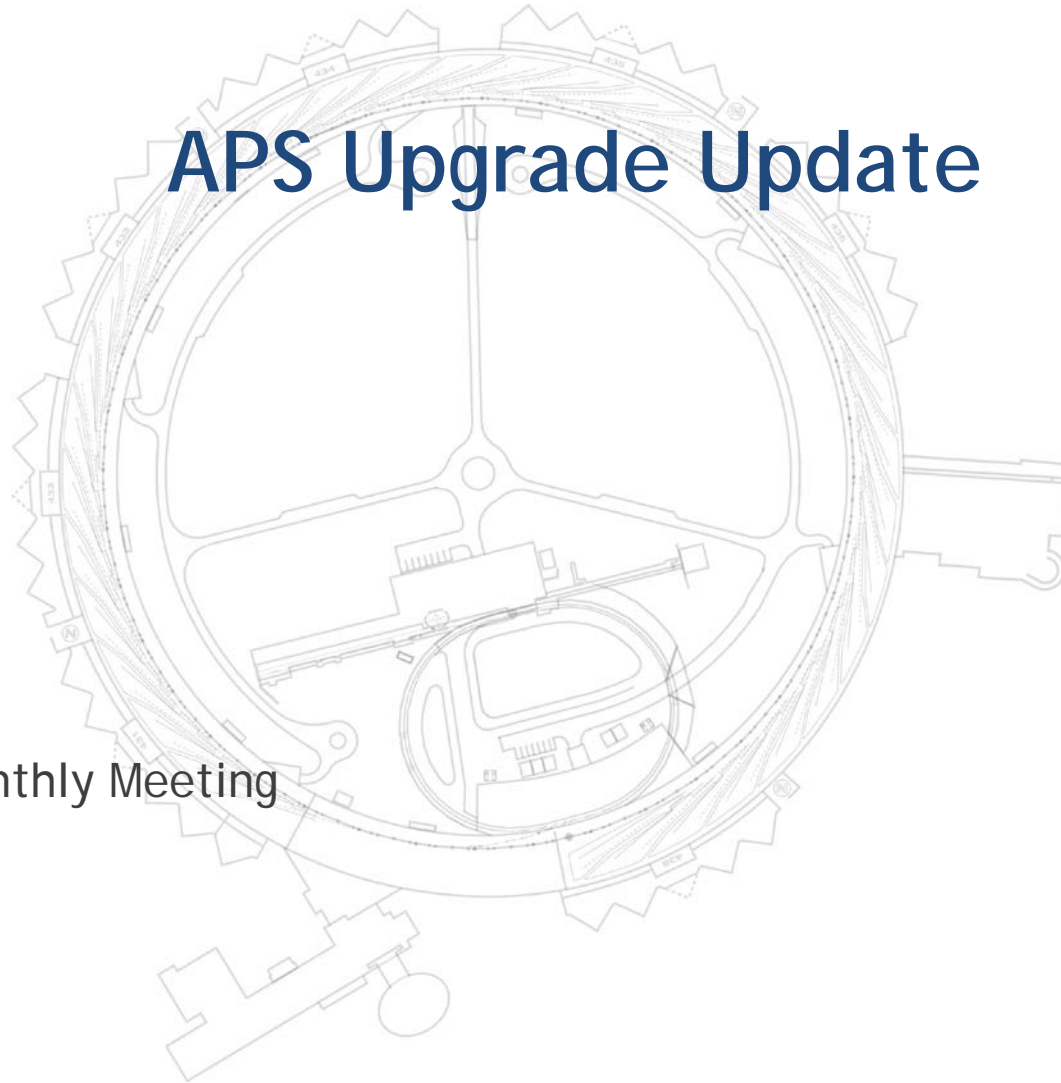


APS Upgrade Update

Jim Kerby

APS Users Monthly Meeting
25 July 2012



Reviews

Early Procurement Review, 16 August (@Germantown)

Director's Review for CD-2, 11-13 September

DOE CD-2 Review, 4-6 December

- [Imaging Beamline Review](#) (ISN, HEXT, WFI) July 17-18
- [Spectroscopy Beamline Review](#) (RIXS, ASL, MS-H, MS-S) July 19-20
- [Front End and Beamline Standard Components](#) 24-25 July

- [Ultrafast Beamline Review](#) 7-8 August
- [Diffraction Beamline Review](#) 14-16 August
- [SPX R&D \(SPX0\) Review](#) 23-24 August
- [Optics/Detectors Review](#) 21 August
- [Conventional Facilities Review](#) 21 August

Charge

The review committee is charged to perform the Preliminary Design Review by evaluating the design readiness of the APS-U Front End Components and Common Beamline Components.

1. Technical Scope

- a) Are the designs mature and technically sound to satisfy design specifications?
- b) Is the design likely to meet performance expectations?
- c) Have all the major interfaces been identified and incorporated into the design?
- d) Are all design specifications, requirements, performance and interface documents at the Preliminary Design stage of completion?
- e) Has Value Engineering been appropriately addressed in the design process?

2. Design Management

- a) Is the design team organized and staffed to successfully complete the project?
- b) Have all of the major risks been identified and managed?
- c) *Are procurements appropriately planned?*
- d) Have appropriate analyses been performed?
- e) *Is the development of associated drawing packages sufficiently mature?*
- f) *Is the design effort consistent with the planned procurement strategy and sufficiently mature to allow the start of any identified early procurements of major components?*

Charge (continued)

3. Cost and Schedule

- a) Are the cost and schedule estimates reasonable to achieve the planned scope, and ready to be baselined?
- b) *Do these estimates include adequate contingency?*

4. ES&H

- a) Are all related ES&H aspects being properly addressed?

5. Miscellaneous

- a) Have all the previous design review action items/comments been addressed?

Organization / Feedback

- External, expert reviewers
- Lehman style close out/report for each beamline
 - Close out sessions with presenters and management
 - Findings/Comments/Recommendations
 - Written reports expected within a month
- Typical Agenda
 - Beamline Overview – Technical Lead
 - Detailed Beamline Layout – Engineering Lead
 - Specialized Topic – Engineer or Scientist
 - Cost & Schedule – Technical Lead with support by Kathy Bailey (PMCS)
- Close out feedback from Imaging and Spectroscopy reviews
 - Many technical comments specific to beamlines
 - Generally stated that designs are sufficient for preliminary design, except:
 - Design specification documents (PRDs, ICDs) need to be signed off on prior to the Director's Review
 - In some cases some major technical choices need to be made prior to completion of preliminary design
- Overall the tone of the reviews was very constructive and cooperative



Upcoming Milestones

Input to the EVMS system was frozen last Friday (20 July)

- The project is scrubbing and organizing the information (questions will continue, albeit at a slower pace for a bit)
- Changes can/will occur, but in a controlled manner

Input to the Preliminary Design Report is Due (effectively—now!)

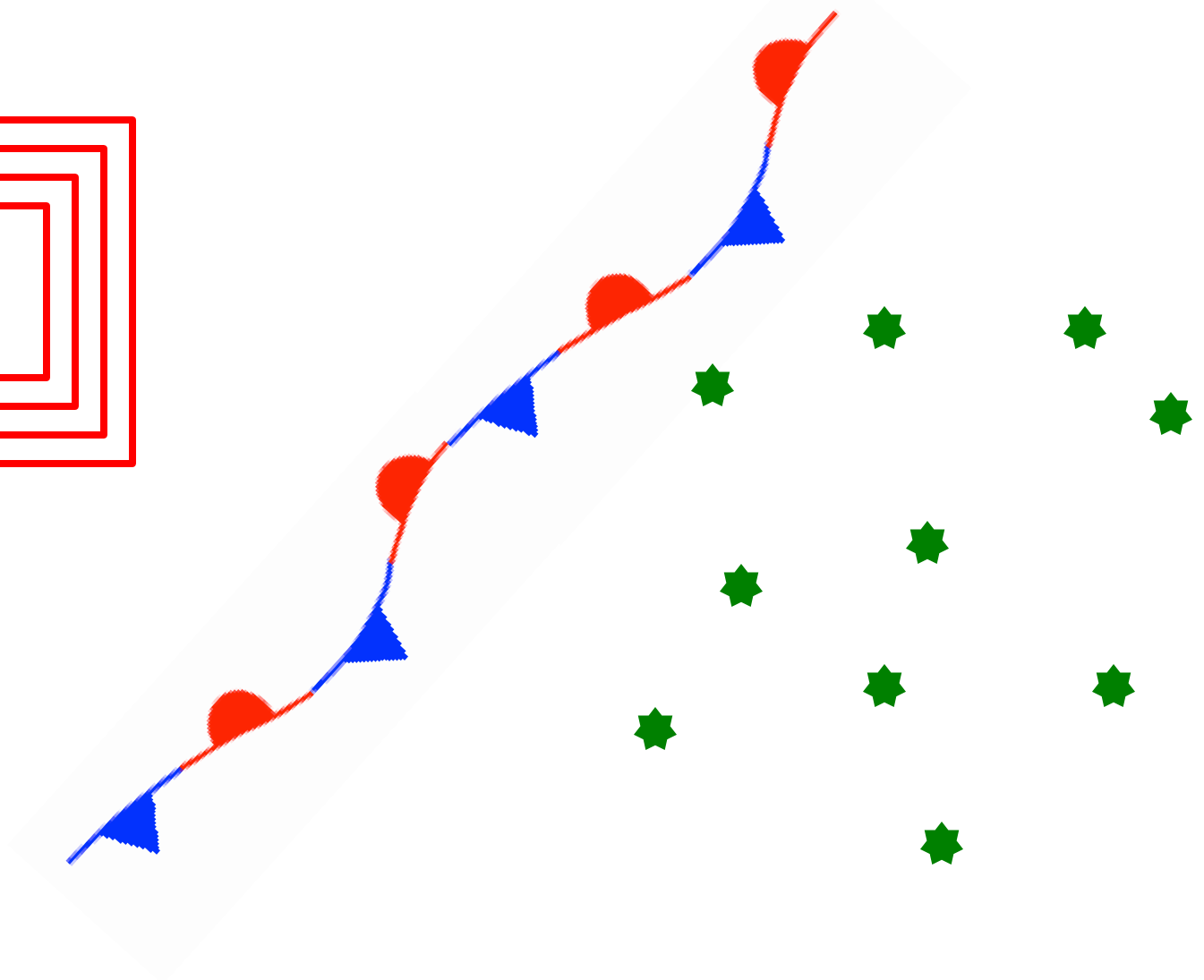
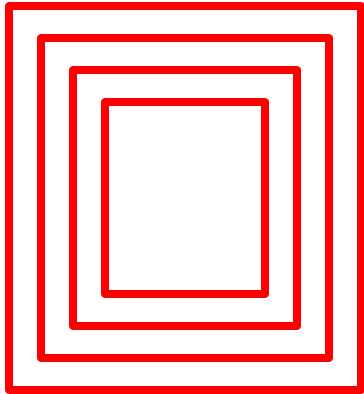
Many Specifications are in the system

- IF they are on your desk, don't ignore those emails!
- PRDs must be signed by the Director's Review

Director's Review Agenda Frozen

- Template
- Practice starts week of 13 August

One definition of a Project



Specifications → Scope

- PRD → Problem Statement
- ICD → Boundary Conditions
- ESD → Solution

For the Project to make the appropriate CD-2 translation, we need to have the PRDs, the problem statements, formally complete.

The farther we are on ICDs, and ESDs, the better, as this gets us farther and farther towards CD-3 readiness.

The PDR documents our best current solutions to the problems we are addressing.

Summary

The project has done very well getting back up to speed in the past few months → thanks for your efforts!

We are on track to our CD-2 reviews, but have considerable work ahead of us.

→ Thanks in advance for your upcoming efforts!

→ Use the associate project managers to ask for additional help / guidance!

We realize that there is a level of formality that is a change from recent experience

→ Necessary to make the translation to our funding agency

Our goal is to complete the upgrade and keep Argonne the premier Photon Science Laboratory