

NCSX Project Meeting Agenda

W. Reiersen for GHN

17 July 2001

Objectives

- Assess technical progress against planned accomplishments
 - Presentations should be aimed at planned accomplishments
 - Current work plans posted on Web
- Make course corrections as required
 - Ample time for discussion provided

Planned accomplishments

- CoilOpt has engineering metrics incorporated and is producing improved modular coil designs (Strickler/Williamson)
- Trade studies of alternate PF designs (more coils, non-circular coils) are complete (Reiersen). Physics assessment performed (Pomphrey).
- Trade studies of alternate TF designs are complete (Reiersen). **Physics assessment performed (Pomphrey).**
- Coupled StellOpt-CoilOpt is tested and fully operational (Zarnstorff et al)

Planned accomplishments (2)

- Code for dynamical healing is tested and fully operational. Reference modular coil set (1017) has been healed (Hudson).
- Detailed plans in place to validate trim coil design, i.e, show that adequate flux surface quality can be preserved through startup and over flexibility space (Brooks).
- Requirements updated for PVR design. Plans in place to fill out requirements and needed technical data by early December (Reiersen).

Planned accomplishments (3)

- Interim tolerance requirements proposed based on what is reasonably achievable (Nelson)
- Assessment of feasibility and design implications of incorporating RF launchers is complete (Cole)
- Design concepts for accommodating specific diagnostics (e.g. Thomson scattering) are being developed (Cole)
- Alternate VV geometries for simplifying fabrication and reducing cost have been explored (Nelson, Brown)

Planned accomplishments (4)

- Design of PFCs has been updated
 - Stay-out zone defined (Mioduszewski)
 - Pumping requirements set (Mioduszewski)
 - Model of PFCs defining design envelopes (including a pumped divertor with cryopumps) has been developed (Nelson)
 - Design implications for VV and coils have been identified (Nelson)
- Plans for dealing with bend radius issue in place (Nelson)
 - Establishing firmer limits through conductor R&D
 - Local smoothing
 - Mitered corners

Planned accomplishments (5)

- Preparations for information meeting on track (BN/PH)
 - CBD announcement prepared and placed
 - Additional e-mail contacts made
 - Mfg Web site updated
 - Design descriptions for modular coils and vacuum vessel in place
 - Development of preliminary manufacturing specs ready to begin
 - Meeting logistics on track
- Change control procedures for conceptual design in place

Tuesday, July 24, 2001

- 10:00 Project Update (G. Neilson)
- 10:30 Physics Overview, Coil Assessments (M. Zarnstorff)
- 11:00 Modular Coil Design (D. Strickler, D. Williamson)
- 11:40 Plans for Dealing with Bend Radius Issue (B. Nelson)
- 12:00 *Discussion*
- 12:30 LUNCH
- 1:30 Flexibility of 5-coil PF Design (N. Pomphrey)
- 1:50 Non-circular PF and Non-1/R TF Options (W. Reiersen)
- 2:15 *Discussion*
- 2:30 Island Healing and PIES Developments (A. Reiman, et al.)
- 3:00 Plans to Validate Trim Coil Design (A. Brooks)
- 3:15 *Discussion*
- 3:30 BREAK
- 3:45 Requirements Review (W. Reiersen)
- 4:45 *Discussion*
- 5:00 ADJOURN

Wednesday, July 25, 2001

- 10:00 In-Vessel Physics and Engineering Design (Mioduszewski et al)
- Magnetic Analyses
- PFC and boundary plasma space envelopes
- Design implications
- 11:30 *Discussion*
- 12:00 LUNCH
- 1:00 Design impacts of inboard RF (M. Cole)
- 1:30 Thomson scattering access (M. Cole)
- 1:45 *Discussion*
- 2:00 Alternate VV Geometries (T. Brown, B. Nelson)
- 2:30 *Discussion*
- 2:45 BREAK
- 3:00 Preparations for Information Meeting (P. Heitzenroeder, B. Nelson)
- 3:30 *Discussion*
- 3:45 ADJOURN