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National Compact Stellarator Experiment (NCSX) SubC# S005243-F
Vacuum Vessel Sub Assembly Production

Weekly Status Report 01/12/05 thru 01/21/05

Project Management

- A big thanks goes out to the PPPL team for visiting MTM this week. The project was headed to a stopping point and the meetings held on Wednesday and Thursday have catapulted the project in a progressive direction.

Meeting Highlights

- Review Project Schedule MTM will issue Gantt Chart in MS format and as pdf
- Review Forming Die designs - PowerPoint presentation/Sampling of Dies
- Review Fabrication Fixture design - PowerPoint presentation of latest design
- Vessel Geometry evaluation - PowerPoint presentation of three models used by MTM
  It was noted that the mismatch shown in last weeks report wasn't duplicated by PPPL team, this was a result of MTM trying to skew the models into a best fit position to the dies used in the prototype.
- Review Manufacturing Routing structure -Live examples of current VM structuring

- Shop tour

- Technical discussion Wed thru Thur
  -Worked through ways to identify areas where "suck-in" would be acceptable.
  - Identified locations for some Fiducials. PPPL will advise desired locations.
  -Look at the current field joint design and reviewed other ideas for the field joint configurations. There was no resolution but the consensus was that a multiple pieces joint fitted and welded during assembly at PPPL seamed more cost effective and a better fabrication process.
  - Resolved the issue of what MTM could cost effectively submit as a process outline and what PPPL wanted as proof that the process was meeting the spec requirements. The following is what MTM will submit:
  1) The spreadsheet created by PPPL that has all the spec requirements was filled out with references to the related VM SubIDs and the related Procedures. The spread sheet will be posted on the ftp site and as the processes are completed the TBD fields will have SubIDs references added.
  2) The spreadsheet submitted by PPPL during the negotiations for the contract was transformed into an option in the VM system. This excel file will be submitted for each lot. The file is complete less the left column which references the spec requirement.
  3) A pdf snapshot of the VM cards will be submitted for each lot.
  - After approval (10 days) no updates are required except for any dramatic changes that would adversely affect quality or delivery. The final data package will include the as built processes.
  - The MIT for the primary fabrication (Lots 1, 2, & 3) will be quite large. The process outline will be submitted incrementally. MTM will provide a release schedule.

- Attached to the weekly update email are the PowerPoint and Gantt Chart used during the meeting.

Prepared By: Mike Manuel
Jan 21st, 2005

Process Engineering

- Working on die and fixture designs and detailing.

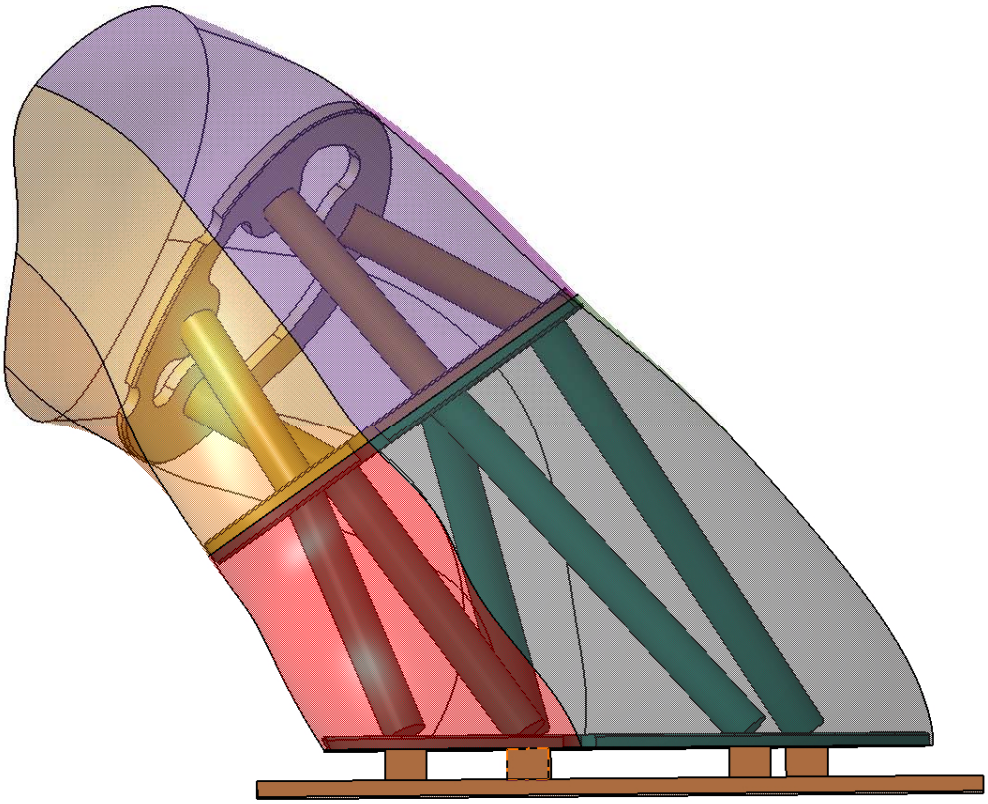
VVSA Fabrication

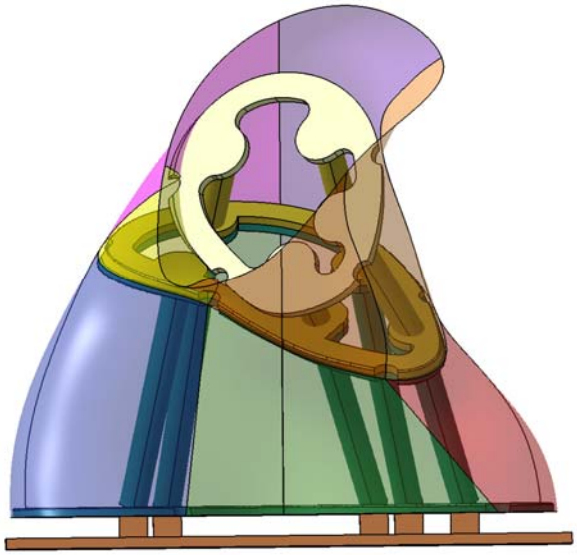
- None

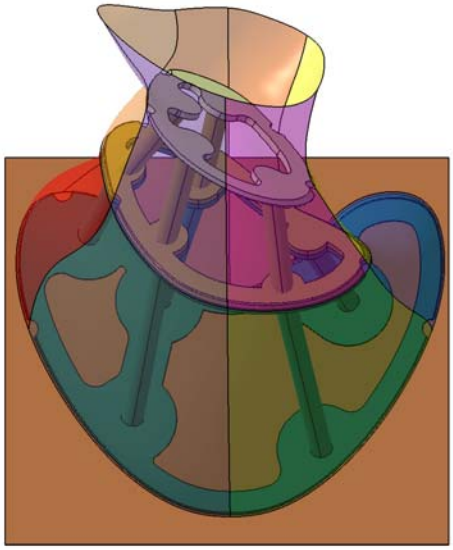
Quality Control & Drawings

- Continuing with Procedure Writing and Structuring

Mature Concept of 60 deg Fixture







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