

**National Compact Stellarator Experiment (NCSX) SubC# S-04344-F  
Vacuum Vessel Manufacturing Development and Prototype Fabrication**

**Weekly Status Report 01/09/04 thru 01/23/04**

**Project Management**

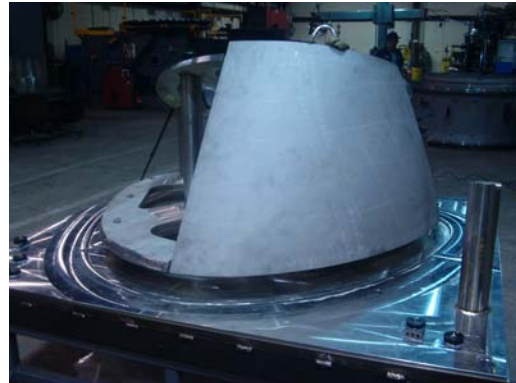
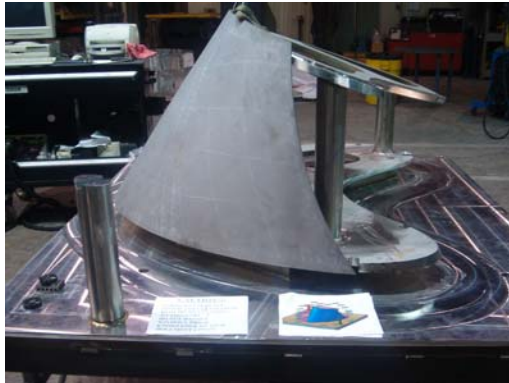
- Visit to MTM – as always anyone from PPPL and ORNL are welcome to visit MTM at any time. We talked about a visit to witness some of the panels going together. The timing of this is very dependent on the development work over the next several days. At the end of next week we may be ready to lock into a firm date (tentatively we see between Feb 9-20 as a target)

**Process Engineering**

- The vacuum procedure is still a work in progress.

**PVVS Fabrication**

- The test panel is on the fixture and over the weekend the laser will verify the location of the panel. If the panel checks good (we feel very sure that it will) on Monday we will begin the process of proving out our weld methods.
- After our team is confident the weld methods plan meets the requirements the MIT will be updated, if needed, and the process of joining all the panels will begin.
- The pictures below show the test panel on the fixture.



**Quality Control**

- The issue with the fixture inspection has been resolved. There were no conflicts between the CMM and laser data as first thought. The conflicting data we were getting also showed the fixture was machined incorrectly, but this fortunately was not the case. We missed the fact that our pickup points on the base of the fixture were a quarter inch lower than shown in the model used by inspection. With a curved three dimension shape a move in any direction throws all the data off. So once we made the adjustment all the points fell into tolerance. (so the welding begins)



- The picture to the right is the laser set up to check the test panel.