

Abstract Submitted
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Status of NCSX Construction¹ G.H. NEILSON, J.H. CHRZANOWSKI, L.E. DUDEK, P.J. HEITZENROEDER, W.T. REIERSEN, M.D. WILLIAMS, M.C. ZARNSTORFF, Princeton Plasma Physics Laboratory, J.F. LYON, B.E. NELSON, Oak Ridge National Laboratory — The National Compact Stellarator Experiment is a new facility being built to study the physics of compact stellarators for fusion and plasma science. Construction is proceeding on schedule toward First Plasma in July, 2009. The major components are well into production. As of July 2006, all 18 modular coil winding forms have been cast in industry. Finished winding forms, with critical surfaces machined to 0.25 mm tolerance, are arriving at PPPL at the rate of one per month, with eight delivered so far. Two of the three vacuum vessel sectors have been delivered, with the last due in September. Three of the 18 modular coils have been wound, and the first of several machine assembly stages has begun. The manufacturing processes were developed through R&D, including the construction of prototypes, prior to going into production. Because of that, the component production efforts are now succeeding in meeting the challenging requirements— complex geometries and tight tolerances— that are necessary to achieve desired plasma properties.

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