



Update on NSTX Plans

Liquid Divertor

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Sandia is a multiprogram laboratory operated by Sandia Corporation, a Lockheed Martin Company, for the United States Department of Energy under contract DE-AC04-94AL85000.





Update on NSTX plans

- **NSTX experimental operations have been under funded for the past two years**
 - **Important experiments needed to meet 5 year goals have been delayed or reduced in scope**
 - **The backlog of experiments caused them to remove the upgraded center stack installation from the schedule**
 - **Without the shutdown for center stack upgrade there is no window of opportunity for doing a liquid lithium experiment with the ability to clean up during a scheduled opening if there are problems**



Update on NSTX plans

- **The decision point for installation of the liquid divertor module was delayed until 2006**
- **Cryopumps will be installed in about 2004 to provide density control (design not done yet)**
 - **Modeling required for cryopump design is competing with the analysis of the effect of liquid surface pumping on NSTX plasmas (adjust funding and schedule??)**
- **Presentation of results of laboratory testing of MHD effects to PAC delayed until about 1/04**



Proposed Course of Action on NSTX

- **Continue feasibility experiments and development of models at the same pace**
 - This information is needed for acceptance in fusion devices. The delay will increase our knowledge and confidence in the ability to successfully use liquids.
- **Should we plan to do a full toroidal divertor in 2006?**
 - Will know more, no strange edge effects, greater positive effect on plasma, good prototype for future
 - Too ambitious, Too expensive (?), ...